

# INNOVATION

*Tomorrow belongs to those who prepare for it today*



# INNOVATION



Gary Findlay • Executive Director | Gary Irwin • Chief Finance Officer

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\* *Missouri State Employees' Plan*



## Our Mission & Core Values

*To exceed customer expectations by providing outstanding benefit services through professional plan administration and sound investment practices.*

### **Quality**

Strive to exceed the expectations of internal and external customers through innovation, competence, and teamwork. Seek to “do it right” the first time.

### **Respect**

Be sensitive to the needs of others, both within and outside the organization. Be courteous, considerate, responsive, and professional.

### **Integrity**

In all endeavors, act in an ethical, honest, and professional manner.

### **Openness**

Be willing to listen to, and share information with, others. Be receptive to new ideas. Be trusting of others.

### **Accountability**

Take ownership of and responsibility for actions and their results. Learn from mistakes. Control system risks and act to protect the security of member information and system assets.

## INSPIRATION

During these difficult economic times, it is not surprising that we find ourselves thinking about the simpler times of the past as we struggle to make a better future. The concept of planning for retirement is timeless and essential for long-term success. MOSERS plans every day for the future of our members so they may enjoy life's simple pleasures in retirement.

*Enjoy life's simple pleasures*





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INTRODUCTORY SECTION





## PROFESSIONAL AWARDS

### Certificate of Achievement for Excellence in Financial Reporting

*MOSERS' Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2009, was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA). This was the 21<sup>st</sup> consecutive year that MOSERS has received this prestigious award. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting.

### Public Pension Standards Award

MOSERS also received the Public Pension Coordinating Council (PPCC), Public Pension Standards Award in 2009, in recognition of meeting the professional standards for plan design and administration as set forth in the Public Pension Standards. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).



## LETTER OF TRANSMITTAL



Missouri State Employees' Retirement System

**Mailing Address**

PO Box 209 • Jefferson City, MO 65102-0209

**Building Location**

907 Wildwood Drive • Jefferson City, MO

October 21, 2010

The Board of Trustees  
Missouri State Employees' Retirement System  
907 Wildwood Drive  
Jefferson City, MO 65109

Dear Board Members:

It is my great pleasure to submit the 2010 Comprehensive Annual Financial Report (CAFR) of the Missouri State Employees' Retirement System (MOSERS). This report includes information regarding the activities of MOSERS during the past fiscal year providing evidence that MOSERS is accomplishing the mission of exceeding customer expectations by providing outstanding benefit services through professional plan administration and sound investment practices. While we have not recovered completely from the abysmal market conditions of FY09, very good progress was made towards recovery, providing evidence of the resiliency of the economy and the related ability of institutional investors to withstand major shocks.

### Report Contents and Structure

This CAFR is designed to satisfy the reporting requirements of state law as stipulated in Sections 104.480, 104.1006, and 105.661 of the Revised Statutes of Missouri (RSMo), as amended. Management has prepared the basic financial statements of MOSERS and is responsible for the integrity and fairness of the information presented. Some amounts included in the financial statements and elsewhere may be based on estimates and judgments. These estimates and judgments were products of the best business practices available. The accounting policies followed in preparing the basic financial statements conform with U.S. generally accepted accounting principles. Financial information presented throughout the CAFR is consistent with that which is displayed in the basic financial statements.

Ultimate responsibility for the CAFR and the basic financial statements rests with the board of trustees. The executive director and the rest of MOSERS' staff assist the board members in fulfilling their responsibilities.

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Systems of internal controls and supporting procedures are maintained to provide assurances that transactions are authorized, assets are safeguarded, and proper records are maintained. These controls include standards in the hiring and training of employees, the establishment of an organizational structure, and the communication of policies and guidelines throughout the organization. Internal controls are reviewed through internal audit programs and all internal audit reports are submitted to the board of trustees.

The system's external auditor, Williams-Keepers LLC, conducted an independent audit of the basic financial statements in accordance with U.S. generally accepted auditing standards. This audit is described in the *Independent Auditor's Report* on page 21 of the *Financial Section*. Management has provided the external auditors with full and unrestricted access to MOSERS' staff to discuss their audit and related findings to facilitate independent validation of the integrity of the plan's financial reporting and the adequacy of internal controls.

The *Financial Section* also contains *Management's Discussion and Analysis* that serves as a narrative introduction to and overview of the financial statements. MOSERS is considered a component unit of the state of Missouri for financial reporting purposes and, as such, the financial statements in this report are also included in the *State of Missouri's Comprehensive Annual Financial Report*.

## Profile of MOSERS

MOSERS is an instrumentality of the state of Missouri that was established in 1957 by state law for the purpose of providing retirement benefits to most state employees. MOSERS provides for those retirement benefits through pension trust funds, in keeping with the fiduciary responsibilities of the board members and staff.

Subsequent to its creation, MOSERS was further assigned the task of providing most members of the retirement system with life and long-term disability insurance. MOSERS operates an internal service fund for the state of Missouri and contracts with insurance companies to provide those benefits through insured defined benefit plans. MOSERS maintains membership information on those eligible for the insurance coverage and collects and remits the premiums to the insurance company. Currently, the life and long-term disability insurance plans are insured through The Standard Insurance Company.

Effective September 1, 2007, a law change transferred responsibility for the administration of the Missouri State Employees' Deferred Compensation Program from the Missouri Deferred Compensation Commission to the MOSERS Board of Trustees. MOSERS provides investment options to participants who retain responsibility for the investment of their individual accounts. Currently, the Missouri State Employees' Deferred Compensation Program is administered by ING. MOSERS operates the deferred compensation program as an internal service fund.

On July 19, 2010, Governor Jay Nixon signed into law House Bill No. 1 that created a new tier defined benefit plan (MSEP 2011) for future state employees first hired on or after January 1, 2011. The MSEP 2011 defined benefit plan does not impact current members of MOSERS. Highlights of these changes can be found on page 31 in the *Notes to the Financial Statements*, and on page 128 of the *Actuarial Section*.

The MOSERS Board of Trustees annually approves the administrative expense budgets for MOSERS' operations and investment divisions. MOSERS' governance policy requires an exception report to the board of trustees by the executive director if expenses are expected to exceed budgeted amounts by 10% or if there are any unscheduled salary increases or staff expansions not included in the budget approved by the board before the beginning of the fiscal year. There were no budget exceptions to report for the year.

### **Succession Planning**

Succession planning strategies were developed for FY10 with an emphasis on employee development and retention as well as ways in which institutional knowledge could be transferred. The operations succession planning program was initially implemented in July 2009. This program includes a selection process for high potential employees who are interested in preparing for higher level positions at MOSERS. Thirty-two percent of MOSERS' workforce is currently eligible to retire or will be eligible to retire in the next five years. The program is intended to capitalize on the experience our current staff already possesses and prepare them to move into higher level positions. The first group of succession planning participants has successfully completed the program. Based upon feedback, some changes were made to the curriculum to provide more planning and assignment review.

### **Staff Compensation and Benefits**

Achievement of the MOSERS Performance Objectives is a critical part of the performance management process for the operations section. Staff is provided with quarterly updates that chart progress towards achieving these goals. This process includes departmental meetings during which employees can discuss progress and offer alternatives for improvements. It also serves as a reminder to staff of their individual responsibility in bringing our goals to fruition.

The board retained CBIZ to conduct a comprehensive compensation study to recommend how to transition staff from a pay plan that included incentive compensation to a pay plan that included base pay only and to ensure staff was paid appropriately compared to the market. The board's final decision for the operations staff was to add 90% of the average percentage earned incentive over the last three years to their base salary effective July 1, with no future opportunity for incentive compensation. The board's final decision for investment staff was to add 50% of the average percentage earned incentive over the last three years to their base salary also effective July 1, with a revised incentive compensation plan. Final incentive payments under the previous pay plan were issued to investment and operations employees on June 29, 2010.

With respect to investments, the board established an incentive compensation plan that mirrored the previous plan with the addition of a new hurdle regarding absolute performance. In order for incentives to be earned, the absolute return for the performance year must be at least zero. If the absolute return is greater than or equal to zero and is less than or equal to 8.5% for any year, the board will make a final decision regarding whether the incentive is fully earned for that year. If the absolute return is above 8.5%, any incentive earned using the relative performance hurdle is automatically determined to be earned without board approval. The board re-established the COLA that was previously in place for all staff.

In FY10, we participated in the NASRA/McLagen salary survey and the Human Resources Management Association of Greater Kansas City salary survey. We were able to incorporate the McLagan data into the CBIZ results. We will continue to participate in these surveys to monitor the adequacy of staff's pay.

## Risk Management Enhancements

Risk management is a critical component of our investment management program. A report from Charlesworth & Associates, MOSERS' risk management consultant, shows that our insurance coverage "has been designed around the risks to which the system is exposed and the philosophy regarding funding of potential loss." Our risk management consultant helps us ensure that our coverage is consistent with industry standards and that we are receiving the best rates available. There were no asset protection exceptions to report for the year.

The Information Technology (IT) department designed and implemented a Visitor Management System, which automates the routine task of visitor sign-in and prints an ID badge that clearly identifies visitors and their reason for visiting. Beyond that, the system is integrated with our existing queue-management system which allows for easier management of member contacts and provides detailed, customizable reporting.

In January 2010, investment staff changed risk service providers by hiring Measurisk to replace DSTi. The primary purpose for this change was to gain greater transparency into hedge fund investments. The change has been successful with 100% of our hedge fund managers providing either position level or exposure level detail on a monthly basis.

## Deferred Compensation Plan Improvements

MOSERS is also responsible for oversight of the State of Missouri Deferred Compensation Plan which includes but is not limited to contracting with the record keeper and communications service provider and the investment managers as well as ensuring that the plan is in compliance with federal and state law. Plan participation is voluntary. As of June 30, 2010, there were 57,241 participants (39,898 active and 17,343 terminated/retired). Of those employees eligible, nearly 54.3% (includes college and university employees) participate in the plan. Plan assets total \$1,358,201,254. ING is the plan record keeper. The plan consists of 13 custom-designed target date investment options, a stable income fund, a brokerage window option, and 30 closed legacy mutual fund options (consisting of a variety of domestic equity, international equity, fixed income, and lifestyle/balanced mutual funds).

Due to declining revenues, the state's incentive (match) was suspended beginning with the March 31, 2010 payroll and was not appropriated for FY11. Since the announcement was first made in February, 1,129 current participants stopped contributing to the deferred compensation plan and 675 participants decreased their contributions. New plan enrollments since the match suspension announcement in March are down 65% with some of that likely attributable to 22% fewer new hires by the state, colleges, and universities compared to the same period last year. The current plan participation rate (currently 54.3%), is down 1% since June 30, 2009. Total participants have decreased by 404 since this time last year. There were 1,270 participants that slightly increased their contribution during this period.

The board also has responsibility for oversight of a 401(a) defined contribution plan for education employees hired after June 30, 2002, by the regional colleges and universities that participate in MOSERS. The employer contribution rate is 1% of payroll less than the normal cost of the defined benefit plan for general state employees. TIAA-CREF is responsible for administration and for providing investment products. Current plan assets total \$21,548,919 with 1,592 participants.

In November 2009, a new Missouri Deferred Compensation Plan website ([www.modeferrredcomp.org](http://www.modeferrredcomp.org)) was launched. This is a gateway website for current and prospective plan participants that organizes and presents deferred compensation information in a timely and concise fashion, while also displaying user-friendly navigation features for enrolling in the plan, accessing personal account information, and fund performance. The website also offers an updated look and access to important plan news and updates. It provides current plan information, performance data, calculators and educational resource tools.

A new target date fund microsite was also developed which provides a comprehensive explanation of the custom target date funds managed by Alliance Bernstein. This site is accessible through the fund information section at [www.modeferrredcomp.org](http://www.modeferrredcomp.org) or directly at [www.alliancebernstein.com/mosers](http://www.alliancebernstein.com/mosers).

### **Web Enhancements**

A year after launching the new MOSERS website, the website design and development team focused on enhancing the online user experience by launching features including a new register and forgot password program, online chat, and a redesigned home page carousel. IT improved security for the member website in connection with adding self-service features that allow members to enroll and manage future password changes and/or resets without any interaction from MOSERS' staff. Security questions were added to help us verify identity, and the login process will also prompt members to verify email addresses every six months. This allows us to keep our records up-to-date and ensures that we are communicating via a current email address.

### **Technology Updates**

We have implemented a new employment applicant tracking system this year which includes an online application. This system has saved significant staff time in terms of recording, tracking, and notifying applicants.

Members can now have payments for their life insurance and long-term disability insurance (LTD) automatically deducted from their bank accounts through MOSERS direct pay program, saving the costs associated with handling paper check deposits. Staff also transitioned our LTD claims to an electronic process (from the retirement system to the insurance company) that allows for overnight submission resulting in faster claim service, reduced mailing costs, and reduced staff time.

IT installed a Storage Area Network (SAN). This is conceptually similar to the virtual server environment. It consolidates the actual disk space that is utilized by the network servers which improves efficiency and flexibility by pooling this key resource. It allows us to dynamically add and/or allocate space to specific servers on an as-needed basis.

### **Cost Effectiveness Measurement**

Cost Effectiveness Measurement Benchmarking, Inc. (CEM) measures the cost of service on an annual per participant basis (including active members and benefit recipients). We have 87,000 participants while the median number within our peer group is fairly close at 90,000. Our cost of \$70 per active member and annuitant was well below the median of \$75 within our peer group. Our overall complexity score remains below the peer average. In addition, MOSERS' service ranked number one again in both our peer group and in CEM's entire universe. We received a score of 90 relative to median scores of 77 and 76 for our peer group and CEM's total universe, respectively.



In an effort to keep costs down and enhance our processing time, we implemented changes that simplify processes, eliminate programs, and/or provide enhanced security. These changes include improving our members' online experience through an online document repository which serves as a secure document exchange that will significantly reduce printing and mailing costs when fully operational. Since inception, our participation rate for active employees is over 80% and for retirees is nearly 36%. For both groups, our participation rate is realizing modest increases each quarter. Savings attributable to this initiative so far are in excess of \$200,000 and expected to grow materially as we incorporate other mailings including individual responses to member inquiries. Staff also created an electronic report to add to the secure portion of the employer website that allows employers to see if any of their employees do not have an email address on file with MOSERS. This report has allowed us to capture many additional member email addresses.

### Summary of Financial Information

The following schedule is a comparative summary of the pension trust funds' additions and deductions for the years ended June 30, 2010, and June 30, 2009.

|            | Pension Trust Funds         |                             |
|------------|-----------------------------|-----------------------------|
|            | Year Ended<br>June 30, 2010 | Year Ended<br>June 30, 2009 |
| Additions  | \$ 1,152,297,853            | \$ (1,240,503,569)          |
| Deductions | (575,126,868)               | (541,861,599)               |
| Net change | \$ 577,170,985              | \$ (1,782,365,168)          |

The following schedule is a comparative summary of the revenues and expenses of the Internal Service Funds (insurance and deferred compensation activity) for the years ended June 30, 2010, and June 30, 2009.

|                      | Internal Service Funds      |                             |
|----------------------|-----------------------------|-----------------------------|
|                      | Year Ended<br>June 30, 2010 | Year Ended<br>June 30, 2009 |
| Operating revenues   | \$ 99,281,435               | \$ 105,678,484              |
| Operating expenses   | (99,039,086)                | (105,492,856)               |
| Nonoperating revenue | 9,816                       | 20,755                      |
| Net change           | \$ 252,165                  | \$ 206,383                  |

Additional financial information can be found in the *Management Discussion and Analysis Report*, the Financial Statements, and schedules included in the *Financial Section* of this report.

## Investments

MOSERS' investments generated a return of 14.3% (net of fees) for FY10. The total fund return exceeded its policy benchmark of 13.4%. For the tenth straight year, MOSERS' investments have generated returns in excess of our benchmark and have done so with less volatility. The incremental return (actual return vs. policy benchmark) resulted in an additional \$49 million for the fund this year.

Performance across asset classes varied during the year with emerging market equities generating some of the highest returns within the portfolio overall. The public equity portfolio returns were 14.3%, the public debt portfolio returns were 14.8%, and the alternatives portfolio produced results of 11.8%. Additional information regarding the financial condition of the pension trust funds can be found in the *Investment Section* of this report.

## Plan's Financial Condition

The funding objective of MOSERS' pension trust funds is to meet long-term benefit promises through contributions that remain approximately level as a percent of member payroll over decades of time. Historical information relating to progress in meeting this objective is presented on pages 47-52. During the year ended June 30, 2010, the funded ratio of the Missouri State Employees' Plan, which covers 104,128 participants, decreased from 83% to 80.4%, primarily as the result of the previous years' unfavorable investment experience. Funding of the Judicial Plan, which covers 909 participants, began on July 1, 1998. During the year ended June 30, 2010, the funded ratio of the Judicial Plan increased from 22% to 23.3%, primarily as the result of the smaller accumulation of assets exposed to last year's market losses and the expectation that the funded ratio will increase 2-3% per year under normal circumstances. Additional information regarding the financial condition of the pension trust funds can be found in the *Actuarial Section* of this report.

## Awards

MOSERS was awarded the Certificate of Achievement for Excellence in Financial Reporting by the Government Finance Officers Association of the United States and Canada (GFOA). This was the 21<sup>st</sup> consecutive year that MOSERS has received this prestigious award. The Certificate of Achievement is the highest form of recognition for excellence in state and local government financial reporting. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. The CAFR must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. We believe that our current CAFR continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

MOSERS received the Public Pension Coordinating Council (PPCC), Public Pension Standards Award, in recognition of meeting the professional standards for plan design and administration as set forth in the Public Pension Standards. This award is presented by the PPCC, a confederation of the National Association of State Retirement Administrators (NASRA), the National Conference on Public Employee Retirement Systems (NCPERS), and the National Council on Teacher Retirement (NCTR).

*Institutional Investor* magazine named MOSERS' chief investment officer, Rick Dahl, Small Public Fund Manager of the Year in the Institutional Investor Award category. This award recognizes U.S. institutional investors whose innovative strategies and fiduciary savvy resulted in impressive returns over the past year, as well as U.S. money managers in 20 asset classes and strategies who stood out in the eyes of the investment community for their exceptional performance, risk management, and service.

Also this fiscal year, the MOSERS website design and development team received an Award of Excellence from the National Association of Government Communicators (NAGC) for the complete redesign of the website. The MOSERS website was one of five finalists considered for an award in the Website II category at NAGC's annual Blue Pencil & Gold Screen Awards competition, which salutes superior communications efforts of government agencies and recognizes the people that create them. In addition, the communication and investment teams also received a second place award from NAGC for the rebranding of the Missouri Deferred Compensation Plan's communication materials.

These awards are gratifying to MOSERS' staff and increase MOSERS' stature as a leader among our peers.

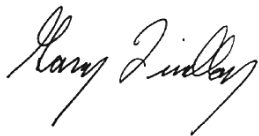
## Conclusion

This report is a product of the combined efforts of MOSERS' staff and advisors functioning under your leadership. It is intended to provide complete and reliable information that will facilitate the management decision making process, serve as a means for determining compliance with legal requirements, and allow for the evaluation of responsible stewardship of the system funds. As in the past, MOSERS received an unqualified opinion from our independent auditor on the financial statements included in this report. The opinion of the independent auditor can be found on page 21.

Copies of this report are provided to the Governor, State Auditor, the Joint Committee on Public Employee Retirement of the General Assembly, and all state agencies that form the link between MOSERS and its members. Their cooperation contributes significantly to the success of MOSERS. We hope all recipients of this report find it informative and useful.

I would like to take this opportunity to express my gratitude to you, the staff, the advisors, and other people who have worked so diligently to assure the continued successful operation of the system.

Respectfully submitted,



Gary Findlay  
Executive Director

## LETTER FROM THE BOARD CHAIR



Missouri State Employees' Retirement System

**Mailing Address**

PO Box 209 • Jefferson City, MO 65102-0209

**Building Location**

907 Wildwood Drive • Jefferson City, MO

October 21, 2010

Dear Members:

On behalf of the board of trustees, I am pleased to present the MOSERS *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2010. This report provides information on the financial status of your retirement system while also highlighting changes that occurred during the year. The accounting portion of this report is prepared following all appropriate accounting principles and is appropriately attested to by the system's certified public accountants.

The board is pleased to report that MOSERS investments generated a return of 14.3% (net of fees) this fiscal year. This excellent return exceeded the policy established benchmark of 13.4% by 0.9% and the actuarial investment return assumption of 8.5% by 5.8%. This higher return added value to your retirement fund.

However, long-term performance is the best indicator of success. For the tenth straight year, MOSERS' investments have generated returns in excess of the established policy benchmark and have done so with less volatility than the benchmark. The incremental reward from these results over ten years has been \$1.6 billion in investment earnings for your retirement fund. In addition, for the 15-year period ended June 30, 2010, MOSERS' total fund return outperformed 95% of the public pension funds in the Rogerscasey universe of public pension plans with assets in excess of \$1 billion.

Your retirement system continues to achieve high marks in the delivery of customer service to our members. One of the ways operational performance is measured is through CEM Benchmarking Inc.'s Pension Administration Benchmarking Analysis. This year CEM evaluated 73 leading pension systems, including systems in the U.S., Canada, Australia, the Netherlands and Denmark, and identified 13 U.S. public pension plans as the most relevant peer group based upon membership size and system assets. The CEM survey rated MOSERS' service delivery as the highest in our peer group with lower than median cost – the fifth time the system has received such a rating during an eleven-year period. In addition, for the third consecutive year, MOSERS received the highest overall service delivery rating in the entire CEM universe. The system is continually working on improvements in service delivery.

In closing, I wish to thank all of the other ten MOSERS board members for their hard work and contributions to the system this year. All trustees serve many hours with great personal sacrifice for no remuneration. My personal belief is that the wide diversity and exceptional knowledge that this board brings to each board meeting is the reason for our system's continued success.

Additionally, the board of trustees thanks the MOSERS staff who strives continually to provide the expertise and professionalism required for excellence in our retirement system. This staff continues to maintain a high level of commitment to serving our membership. Both the board and staff look forward to meeting your future needs. If you have any questions regarding this report or any other aspect of MOSERS, please contact us at MOSERS, P.O. Box 209, Jefferson City, MO 65102 or call 1-800-827-1063. You may also visit our website at [www.mosers.org](http://www.mosers.org).

Sincerely,

Donald Martin, Chair  
Board of Trustees

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## BOARD OF TRUSTEES



**Donald Martin - Chair**  
*Elected Retired Member*



**Bob Patterson - Vice Chair**  
*Elected Active Member*



**Wayne Bill**  
*Elected Active Member*



**Senator Jason Crowell**  
*Senate Appointed Member*



**Representative Bill Deeken**  
*House Appointed Member*



**Representative Ward Franz**  
*House Appointed Member*



**Senator Timothy Green**  
*Senate Appointed Member*



**Travis Morrison**  
*Governor Appointed Member*



**Commissioner of Administration**  
**Kelvin Simmons**  
*Ex-Officio Member*



**David Steelman**  
*Governor Appointed Member*



**State Treasurer**  
**Clint Zweifel**  
*Ex-Officio Member*



## ADMINISTRATIVE ORGANIZATION



**Gary Findlay** - *Executive Director*

---

Greg Beck - *Chief Auditor*

Judy Delaney - *Legislative & Policy Coordinator*

Jake McMahon - *Chief Counsel*

Lisa Verslues - *Human Resources Coordinator*



**Karen Stohlgren** - *Deputy Executive Director  
Chief Operations Officer (COO)*

---

Stacy Gillmore - *Manager of Information Technology*

Gary Irwin - *Chief Finance Officer*

Lori Leeper - *Operations Project Coordinator/Board Secretary*

JoAnn Looten - *Manager of Records & Facility*

Krista Myer - *Manager of Communications*

Scott Simon - *Manager of Benefit Services*



**Rick Dahl** - *Deputy Executive Director  
Chief Investment Officer (CIO)*

---

Shannon Davidson - *Manager of Investment Risk & Performance*

Seth Kelly - *Manager of Investment Research & Strategy*

Jim Mullen - *Manager of Public Debt*

Pat Neylon - *Manager of Public Equity*

Scott Peppard - *Manager of Alternative Investments*

Christine Rackers - *Manager of Investment Policy & Communications*

Cindy Rehmeier - *Manager of Deferred Compensation*

Tricia Scrivner - *Manager of Hedge Fund Investments*

## ABOUT MOSERS

### Purpose

MOSERS was established September 1, 1957, and is governed by laws of the state of Missouri.

MOSERS provides retirement, survivor, and disability benefits, as well as life insurance and deferred compensation plan management to its members.

MOSERS administers retirement benefits for most state employees, including members of the Missouri General Assembly, elected state officials, and judges. MOSERS is responsible for administering the law in accordance with the expressed intent of the Missouri General Assembly and bears a fiduciary obligation to the state employees who are its members and beneficiaries.

### Administration

State law provides that responsibility for the administration of MOSERS is vested in an 11-member board of trustees. The board is comprised of:

- Two members of the Senate appointed by the President Pro Tem of the Senate.
- Two members of the House of Representatives appointed by the Speaker of the House.
- Two members appointed by the Governor.
- The State Treasurer.
- The Commissioner of Administration.
- Three other system members: two active members elected by the active and terminated-vested members, and one retiree elected by the retired members.



The day-to-day management of MOSERS is delegated to the executive director who is appointed by the board and serves at its pleasure. The executive director acts as advisor to the board on all matters pertaining to the system, contracts for professional services, and employs the remaining staff needed to manage the system.

### Organization

The executive director, COO, and CIO are responsible for planning, organizing, and administering the operations of the system under the broad policy guidance and direction of the board. MOSERS' office is divided into eight administrative sections that perform specific functions for the system.

### Executive Services

The executive services team provides administrative support by assisting the executive director, COO, and CIO in the major legal, operational, and oversight functions of the retirement, benefit, and communication programs.

### Accounting

Accounting is responsible for all financial records of the programs administered by MOSERS, including the preparation of financial and statistical reports. Accounting performs the purchasing functions for MOSERS and interfaces with the investment custodian, Office of Administration accounting, various payroll and personnel departments, life insurance companies, actuaries, banks, and the IRS on all accounting-related issues.

### Benefit Services

Benefit services is responsible for contact with the members regarding the benefit programs directly administered by MOSERS, which include retirement, life insurance, and long-term disability.

### Communications

Communications is responsible for providing clearly written and attractively designed publications, and conducting educational seminars to inform members about benefit programs administered by MOSERS. Communications and the information technology section are jointly responsible for MOSERS' website.

### Information Technology

Information technology is responsible for establishing and maintaining the automated systems that support MOSERS' daily operations. MOSERS takes full advantage of technology to automate and integrate almost every aspect of the business. Key technologies include a document imaging system, a custom-built benefits management system and a computer-based telephone system.

## **Investments**

The primary function of the investment department is to provide internal investment management and consulting services to the board and the executive director. Other functions include hiring and terminating external investment managers, making strategic allocation decisions, analyzing the overall asset allocation, rebalancing the portfolio, and informing and advising the board and executive director on financial and economic developments which may affect the system. The investment staff also works with the asset consultant and the executive director in selecting and monitoring external money managers. Information regarding the investment professional service providers can be found in the *Investment Section*.

## **Records and Facility Management**

Records and facility management is responsible for establishing and maintaining all membership records including maintenance of the data on the electronic imaging system, balancing payroll deductions for insurance, and entering the payroll, service, and leave data into the system's retirement database. This section is also responsible for mail services and general building maintenance.

## **Executive Support Staff**

Executive support staff provides clerical support services.

## OUTSIDE PROFESSIONAL SERVICES

### Actuary

- Gabriel, Roeder, Smith & Co.

### Auditor

- Williams-Keepers, LLC

### Governmental Consultants

- Gamble & Schlemeier, LTD
- West Consulting, Inc.

### Legal Counsel

- Steptoe & Johnson, LLP
- Thompson Coburn, LLP

### Master Custodian

- Bank of New York Mellon

### Investment Management Consultants

- Blackstone Alternative Asset Management, LP  
*Hedge Fund Asset Consultant*
- Summit Strategies Group  
*General Asset Consultant*
- TimberLink, LLC  
*Timberland Consultant*

### Risk Management Consultant

- Charlesworth & Associates, LC

### Third-Party Administrators

- ING  
*Deferred Compensation Plan*
- The Standard Insurance Company  
*Disability and Life Insurance*
- TIAA-CREF  
*College & University Retirement Plan*

### Securities Lending Advisors

- Deutsche Bank AG,  
New York Branch
- Credit Suisse AG, New York Branch

### Investment Advisors

- Actis Capital, LLP
- Alinda Capital Partners, LLC
- Alliance Bernstein Defined Contribution Investments
- AQR Capital Management, LLC
- Axiom Asia Private Capital
- Barclays Global Investors, NA
- Baillie Gifford International, LLC
- Bayview Asset Management, LLC
- BlackRock Financial Management, Inc.
- Blackstone Alternative Asset Management, LP
- Blackstone Distressed Securities Advisors, LP
- Blackstone Real Estate Advisors
- Blakeney Management
- Brevan Howard Capital Management Limited
- Bridgepoint Capital Limited
- Bridgewater Associates, LP
- CarVal Investors, LLC
- Catterton Partners

- Claren Road Asset Management, LLC
- Davidson Kempner Capital Management, LLC
- DDJ Capital Management, LLC
- Development Partners International
- DG Capital Management
- Diamondback Capital Management, LLC
- DRI Capital, Inc.
- Elliott International Capital Advisors, Inc.
- Eminence Capital
- Eton Park Capital Management, LP
- Farallon Capital Management, LLC
- Fortress Investment Group, LLC
- GFI Energy Ventures, LLC
- Global Forest Partners, LP
- Grantham, Mayo, Van Otterloo & Co., LLC
- Harvest Fund Advisors, LLC
- HBK Investments, LP
- Highside Capital Management, LP
- JLL Partners
- King Street Capital Management, LP
- Legg Mason Capital Management, Inc.

*Continued on page 20*

## OUTSIDE PROFESSIONAL SERVICES

*Continued from page 19*

- Leuthold Weeden Capital Management
- Linden Capital Partners, LLC
- Mastholm Asset Management, LLC
- Merit Energy Company
- MHR Fund Management, LLC
- Millennium Technology Ventures, LP
- Moon Capital Management, LP
- Morant Wright Management Limited
- New Mountain Capital, LLC
- Nippon Value Investors
- NISA Investment Advisors, LLC
- Oaktree Capital Management, LP (OCM)
- Pacific Alternative Asset Management Company, LLC (PAAMCO)
- Parish Capital Advisors, LLP
- Perry Corp.
- Resource Management Service, LLC
- Silchester International Investors
- Silver Creek Capital Management, LLC
- Silver Lake Partners
- Silver Point Capital, LP
- The Campbell Group, LLC
- TPG-Axon Capital Management, LP
- Trust Company of the West (TCW)
- Veritas Capital Fund Management, LLC
- Viking Global Investors, LP
- Wellington Management Company, LLP



# MOTIVATION

Retirement is not just an event; it is an achievement, a milestone and a new beginning. Though ideas about retirement continue to change, the big picture stays the same. MOSERS remains well funded and focused on keeping promised benefits secure.

*Focus on the timeless value of retirement*





## FINANCIAL SECTION

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## INDEPENDENT AUDITOR'S REPORT



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The Board of Trustees  
Missouri State Employees' Retirement System

We have audited the accompanying basic financial statements of the Missouri State Employees' Retirement System (MOSERS), a component unit of the state of Missouri, as of and for the year ended June 30, 2010, as listed in the accompanying table of contents. We have also audited the financial statements of MOSERS' internal service funds as of and for the year ended June 30, 2010, as displayed in MOSERS' basic financial statements. These financial statements are the responsibility of MOSERS' management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with U.S. generally accepted auditing standards. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of MOSERS, as well as MOSERS' internal service funds, as of June 30, 2010, and the respective changes in financial position and cash flows, where applicable, for the year then ended, in conformity with U.S. generally accepted accounting principles.

The management discussion and analysis and the schedules of funding progress and employer contributions as listed in the table of contents are not a required part of the basic financial statements but are supplementary information required by U.S. generally accepted accounting principles. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information for the years ended June 30, 2010, 2009, 2008, 2007, and 2006. However, we did not audit the information and express no opinion on it.

Our audits were made for the purpose of forming an opinion on the financial statements taken as a whole. The additional financial information as listed in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements of MOSERS. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

The *Introductory, Investment, Actuarial, and Statistical Sections* have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

*Williams Keepers LLC*

October 21, 2010

American Institute of Certified Public Accountants  
Missouri Society of Certified Public Accountants  
PKF North American Network

Superior service. Creative solutions. Exceptional clients.

## MANAGEMENT DISCUSSION AND ANALYSIS

The basic financial statements contained in this section of the *Comprehensive Annual Financial Report* consist of:

The *Statements of Plan Net Assets* which report the pension trust funds assets, liabilities, and resulting net assets where  $\text{Assets} - \text{Liabilities} = \text{Net Assets}$  available at the end of the fiscal year. It is a snapshot of the financial position of the pension trust funds at that specific point in time.

The *Statements of Changes in Plan Net Assets* which summarize the pension trust funds' financial transactions that have occurred during the fiscal year where  $\text{Additions} - \text{Deductions} = \text{Net Change in Net Assets}$ . It supports the change that has occurred to the prior year's net asset value on the *Statements of Plan Net Assets*.

The *Balance Sheet* of the internal service funds is similar to the *Statements of Plan Net Assets* in that it is also a snapshot of the financial position of the internal service funds where  $\text{Net Assets} + \text{Liabilities} = \text{Assets}$ .

The *Statements of Revenues, Expenses, and Changes in Net Assets* of the internal service funds is similar to the *Statements of Changes in Plan Net Assets* in that it also reports a summary of the financial activity that occurred over the period of the fiscal year where  $\text{Revenues} - \text{Expenses} = \text{Net Revenue}$  and supports the change to the prior year's net assets.

The *Statements of Cash Flows* of the internal service funds reports the financial transactions of the fiscal year of the internal service funds on a cash basis. It is similar to the *Statements of Revenues, Expenses and Changes in Net Assets*; however, the focus of this statement is on the change to cash balances with accrued income and expense items eliminated.

The *Notes to the Financial Statements* are an integral part of the above financial statements and include additional information not readily evident in the statements themselves.

The required supplementary *Management Discussion and Analysis* information and the *Required Supplementary Information* and *Additional Financial Information* following the *Notes to the Financial Statements* provide detailed historical information considered useful in evaluating the condition of the plans administered by MOSERS.

Pages 23-26 contain summary comparative statements of MOSERS' pension trust funds and internal service funds and provide additional analysis of the changes noted on those schedules.

MOSERS' overall pension fund financial condition improved during the fiscal year ended June 30, 2010. Pension fund net assets increased by \$577,170,985 during the fiscal year, primarily as result of an increase in investment values and their associated income. The investments

of the pension trust funds generated a 14.3% return for the year, up from the prior year's return of -19.1%. The MSEP plan experienced a decrease in its funded status from 83% to 80.4% and the Judicial Plan experienced an increase in its funded status from 22% to 23.3%. The temporary change in the valuation asset market corridor adopted by the MOSERS Board of Trustees in 2009 goes to +/- 25% through June 30, 2010. This was done to reflect the unusual market condition experienced over the last two fiscal years. The corridor is scheduled to return to +/- 20% in FY11.

The internal service funds net assets increased by \$252,165. The goals of the internal service funds are to maintain the funds at a level that enables it to meet its obligations of contracting the premiums for the life and long-term disability insurance benefits for state employees; maintain the membership data necessary to track the premiums due from the state and its employees and payable to the insurance carrier; manage the state employees deferred compensation program; and collect and remit the state and employee contributions to the deferred compensation plan administrator.

The following schedules present summary comparative financial statements of the pension trust funds and internal service funds for FY10 and FY09. For each schedule there is a brief summary of the significant changes noted in those schedules.

## Pension Trust Funds

### *Summary Comparative Statements of Plan Net Assets Analysis*

The largest components of the net assets of the pension trust funds are the investments, cash and short-term investments, and securities lending collateral.

The increase in the fair value of investments is primarily attributable to the favorable market conditions experienced during FY10, as evidenced by an increase in MOSERS' total investment return from -19.1% last year to 14.3% this year. During the fiscal year ended June 30, 2010, MOSERS was properly positioned to

take advantage of the market rebound that occurred during the first three quarters of the fiscal year and provided significant downside protection during the last quarter. Detailed information regarding MOSERS' investment portfolio is included in the *Investment Section* of this report.

The decrease in securities lending collateral is primarily attributable to MOSERS' decision to reduce the size of the lending portfolio in an effort to reduce the risk exposure in this area. Lending margins were also narrower during the fiscal year making it less attractive to loan securities. As of the fiscal year-end, approximately 35%

of the collateral received has been invested in asset-backed and corporate bonds. The value of the invested collateral has declined below the level of the liability MOSERS has incurred from the securities lending program. If all the loans were terminated on June 30, 2010, MOSERS would have had to make up the \$9.7 million difference between the invested collateral of \$192.6 million and the collateral liability of \$202.3 million.

Cash and short-term investments were up slightly, partly as a result of increased investing activity during the year.

### Summary Comparative Statements of Plan Net Assets Pension Trust Funds

|  | As of<br>June 30, 2010 | As of<br>June 30, 2009 | Amount<br>of Change | Percentage<br>Change |
|--|------------------------|------------------------|---------------------|----------------------|
| Cash and short-term investments        | \$ 630,869,896         | \$ 624,390,801         | \$ 6,479,095        | 1.04%                |
| Receivables                            | 45,578,213             | 50,537,236             | (4,959,023)         | (9.81)               |
| Investments                            | 6,199,292,141          | 5,644,811,509          | 554,480,632         | 9.82                 |
| Invested securities lending collateral | 192,640,173            | 385,276,913            | (192,636,740)       | (50.00)              |
| Capital assets                         | 3,190,347              | 3,313,056              | (122,709)           | (3.70)               |
| Other assets                           | 50,312                 | 85,515                 | (35,203)            | (41.17)              |
| Total assets                           | 7,071,621,082          | 6,708,415,030          | 363,206,052         | 5.41                 |
| Administrative expense payables        | 2,204,046              | 1,606,040              | 598,006             | 37.23                |
| Investment purchase payables           | 23,438,954             | 23,837,745             | (398,791)           | (1.67)               |
| Investment income payables             | 25,586,275             | 0                      | 25,586,275          | 100.00               |
| Securities lending collateral          | 202,323,418            | 441,487,337            | (239,163,919)       | (54.17)              |
| Other liabilities                      | 11,891,157             | 12,477,661             | (586,504)           | (4.70)               |
| Total liabilities                      | 265,443,850            | 479,408,783            | (213,964,933)       | (44.63)              |
| Net assets                             | \$6,806,177,232        | \$ 6,229,006,247       | \$ 577,170,985      | 9.27                 |



### *Summary Comparative Statements of Changes in Plan Net Assets Analysis*

The slight decrease in contributions received is primarily attributable to a decrease in state payroll for the year.

The increase in investment income in FY10 over FY09 is attributable to the generally favorable market conditions experienced by the investments of the fund. The decrease in securities lending income is primarily attributed to a decrease in demand for lendable securities and an intentional effort to reduce MOSERS' risk exposure in the securities lending arena. Additional information regarding the investments and securities lending activity can be found in the *Investment Section* of this report.

The total benefit payments increase is due to a net increase in the number of benefit recipients plus cost-of-living adjustments provided to existing benefit recipients. Detailed schedules of these changes can be found on pages 112-117 of the *Actuarial Section* of this report.

Service transfers are dependent on the number of members electing to transfer their service out of MOSERS and the cost of that service transferred. Refunds are dependent on the number of members MOSERS is able to locate who have contributions remaining in the system. During FY10, there were 69 members electing to transfer their service out of MOSERS and one member was located who had contributions remaining in the system.

### **Internal Service Funds**

#### *Summary Comparative Balance Sheets Analysis*

The decrease in premiums receivable is attributable to normal fluctuations in the month end balance of life and long-term disability insurance premiums receivable during the year, which are dependent on the number of members participating and amount of their coverage.

The accounts receivable-other increase is due to increased receipts received in conjunction with the revenue sharing arrangement with the deferred compensation plan administrator. To cover the administration costs of the program, each quarter MOSERS receives a flat amount of \$25,000 plus, beginning in 2009, 0.07% annualized of the ING Stable Income Fund. The fourth quarter ING Stable Income Fund revenue sharing payment of \$129,521 remained receivable at fiscal year-end.

The increase in investments is attributable to normal fluctuations in the investment in overnight repurchase agreements of the funds held pending transmission to the life and long-term disability insurance company and to the deferred compensation administrator.

The increase in premiums payable is attributable to normal fluctuations in the month end balances of premiums payable for the year, similar to the fluctuations of the premiums receivable.

Other liabilities increased primarily as a result of the increase in reimbursements due to the pension trust funds for the internal service fund's portion of shared expenses which had not been transferred at year-end.

### *Summary Comparative Statements of Revenues, Expenses, and Changes in Net Assets Analysis*

Premium receipts and premium disbursements increased slightly due to normal fluctuations in the amount of optional life insurance coverage selected by state employees.

The decrease in deferred compensation receipts and disbursements is primarily attributable to a decreased number in the workforce contributing to the plan as well as the discontinuation of the employer incentive match in March 2010.

Miscellaneous income increased as a result of higher receipts from the revenue sharing arrangement with the deferred compensation plan administrator.

Premium refunds decreased slightly as a result of a decrease in the amount of payroll processing errors by state entities.

Administrative expenses decreased primarily as a result of expenses for improvements made in 2009 to the state's deferred compensation plan that were implemented prior to 2010.

Investment income decreased primarily due to an overall decrease in the 90-day treasury bill rates during the fiscal year.

**Summary Comparative Statements of Changes in Plan Net Assets****Pension Trust Funds**

|   | <b>Year Ended<br/>June 30, 2010</b> | <b>Year Ended<br/>June 30, 2009</b> | <b>Amount<br/>of Change</b> | <b>Percentage<br/>Change</b> |
|---|-------------------------------------|-------------------------------------|-----------------------------|------------------------------|
| Contributions                                     | \$ 281,842,348                      | \$ 283,094,964                      | \$ (1,252,616)              | (0.44)%                      |
| Investment income (loss) - investing activities   | 868,603,852                         | (1,530,053,487)                     | 2,398,657,339               | 156.77                       |
| Investment income - securities lending activities | 1,204,378                           | 5,829,390                           | (4,625,012)                 | (79.34)                      |
| Miscellaneous income                              | 647,275                             | 625,564                             | 21,711                      | 3.47                         |
| Total additions (reductions)                      | 1,152,297,853                       | (1,240,503,569)                     | 2,392,801,422               | 192.89                       |
| Benefits  | 567,514,834                         | 534,698,643                         | 32,816,191                  | 6.14                         |
| Service transfers and refunds                     | 466,076                             | 0                                   | 466,076                     | 100.00                       |
| Administrative expenses                           | 7,145,958                           | 7,162,956                           | (16,998)                    | (0.24)                       |
| Total deductions                                  | 575,126,868                         | 541,861,599                         | 33,265,269                  | 6.14                         |
| Net increase (decrease)                           | 577,170,985                         | (1,782,365,168)                     | 2,359,536,153               | 132.38                       |
| Net assets beginning of year                      | 6,229,006,247                       | 8,011,371,415                       | (1,782,365,168)             | (22.25)                      |
| Net assets end of year                            | \$6,806,177,232                     | \$ 6,229,006,247                    | \$ 577,170,985              | 9.27                         |

**Summary Comparative Balance Sheets****Internal Service Funds**

|   | <b>As of<br/>June 30, 2010</b> | <b>As of<br/>June 30, 2009</b> | <b>Amount<br/>of Change</b> | <b>Percentage<br/>Change</b> |
|---|--------------------------------|--------------------------------|-----------------------------|------------------------------|
| Cash  | \$ 8                           | \$ 0                           | \$ 8                        | 100.00%                      |
| Premiums receivable                         | 1,013,226                      | 1,033,692                      | (20,466)                    | (1.98)                       |
| Accounts receivable - other                 | 129,521                        | 124,488                        | 5,033                       | 4.04                         |
| Investments                                 | 3,103,073                      | 2,642,046                      | 461,027                     | 17.45                        |
| Total assets                                | 4,245,828                      | 3,800,226                      | 445,602                     | 11.73                        |
| Premiums payable                            | 2,999,451                      | 2,878,996                      | 120,455                     | 4.18                         |
| Deferred compensation contributions payable | 55,327                         | 0                              | 55,327                      | 100.00                       |
| Other liabilities                           | 406,780                        | 389,125                        | 17,655                      | 4.54                         |
| Total liabilities                           | 3,461,558                      | 3,268,121                      | 193,437                     | 5.92                         |
| Unrestricted net assets                     | 784,270                        | 532,105                        | 252,165                     | 47.39                        |
| Total liabilities and net assets            | \$4,245,828                    | \$3,800,226                    | \$445,602                   | 11.73                        |

**Summary Comparative Statements of Revenues, Expenses, and Changes in Net Assets****Internal Service Funds**

|                                     | <b>Year Ended<br/>June 30, 2010</b> | <b>Year Ended<br/>June 30, 2009</b> | <b>Amount<br/>of Change</b> | <b>Percentage<br/>Change</b> |
|-------------------------------------|-------------------------------------|-------------------------------------|-----------------------------|------------------------------|
| Premium receipts                    | \$29,098,799                        | \$ 28,990,057                       | \$ 108,742                  | 0.38%                        |
| Deferred compensation receipts      | 69,143,267                          | 75,661,047                          | (6,517,780)                 | (8.61)                       |
| Miscellaneous income                | 1,039,369                           | 1,027,380                           | 11,989                      | 1.17                         |
| Total operating revenue             | 99,281,435                          | 105,678,484                         | (6,397,049)                 | (6.05)                       |
| Premium disbursements               | 29,077,825                          | 28,968,981                          | 108,844                     | 0.38                         |
| Deferred compensation disbursements | 69,143,267                          | 75,683,218                          | (6,539,951)                 | (8.64)                       |
| Premium refunds                     | 20,974                              | 21,076                              | (102)                       | (0.48)                       |
| Administrative expenses             | 797,020                             | 819,581                             | (22,561)                    | (2.75)                       |
| Total operating expenses            | 99,039,086                          | 105,492,856                         | (6,453,770)                 | (6.12)                       |
| Net operating income                | 242,349                             | 185,628                             | 56,721                      | 30.56                        |
| Investment income                   | 9,816                               | 20,755                              | (10,939)                    | (52.71)                      |
| Net revenues over expenses          | 252,165                             | 206,383                             | 45,782                      | 22.18                        |
| Net assets beginning of year        | 532,105                             | 325,722                             | 206,383                     | 63.36                        |
| Net assets end of year              | \$ 784,270                          | \$ 532,105                          | \$ 252,165                  | 47.39                        |

### *Summary Comparative Statements of Cash Flows Analysis*

The increase in cash flows from operating activities is primarily attributable to an increase in cash payments received from employers and members over that of FY09.

The decrease in cash flows from noncapital financing activities is primarily attributable to a decrease in the amount of life and long-term

disability premium refund checks that remained outstanding at year-end.

The decrease in cash flows from investing activities is primarily attributable to a decrease in the cash flows from net purchase and maturities of overnight repurchase agreements of \$162,975 and a decrease in the investment income received of \$10,939.

### *Request for Information*

This financial report is designed to provide a general overview of the system's finances for all those with interest in the system. Questions concerning any of the information provided in this report or request for additional information should be addressed to MOSERS at P.O. Box 209, Jefferson City, MO 65102.

### **Summary Comparative Statements of Cash Flows**

#### Internal Service Funds

|   | Year Ended<br>June 30, 2010 | Year Ended<br>June 30, 2009 | Amount<br>of Change | Percentage<br>Change |
|---|-----------------------------|-----------------------------|---------------------|----------------------|
| Cash flows from operating activities            | \$ 452,171                  | \$ 274,449                  | \$ 177,722          | 64.76%               |
| Cash flows from noncapital financing activities | (952)                       | 2,810                       | (3,762)             | (133.88)             |
| Cash flows from investing activities            | (451,211)                   | (277,297)                   | (173,914)           | 62.72                |
| Net change in cash                              | 8                           | (38)                        | 46                  |                      |
| Cash balances beginning of year                 | 0                           | 38                          | (38)                |                      |
| Cash balances end of year                       | \$ 8                        | \$ 0                        | \$ 8                |                      |

*Basic Financial Statements*

# STATEMENTS OF PLAN NET ASSETS

## PENSION TRUST FUNDS - AS OF JUNE 30, 2010

|   | MSEP            | Judicial Plan | Total           |
|---|-----------------|---------------|-----------------|
| <b>Assets</b>   |                 |               |                 |
| Cash and short-term investments                       | \$ 623,682,400  | \$ 7,187,496  | \$ 630,869,896  |
| <u>Receivables</u>                                    |                 |               |                 |
| State contributions                                   | 9,713,222       | 1,134,742     | 10,847,964      |
| Investment sales                                      | 33,939,188      | 391,125       | 34,330,313      |
| Other   | 395,380         | 4,556         | 399,936         |
| Total receivables                                     | 44,047,790      | 1,530,423     | 45,578,213      |
| <u>Investments at fair value</u>                      |                 |               |                 |
| U.S. treasury securities                              | 829,231,688     | 9,556,305     | 838,787,993     |
| Corporate bonds                                       | 122,030,335     | 1,406,313     | 123,436,648     |
| Convertible bonds                                     | 3,195,889       | 36,830        | 3,232,719       |
| Government bonds & gov't mortgage-backed securities   | 37,326,911      | 430,166       | 37,757,077      |
| Common stock  | 830,134,113     | 9,566,705     | 839,700,818     |
| Preferred stock                                       | 7,871,437       | 90,713        | 7,962,150       |
| Limited partnerships                                  | 3,282,145,346   | 37,824,391    | 3,319,969,737   |
| Bank loans  | 86,274,717      | 994,255       | 87,268,972      |
| Collateralized mortgage obligations                   | 105,110,684     | 1,211,326     | 106,322,010     |
| Foreign currency                                      | 4,004,587       | 46,150        | 4,050,737       |
| International equities                                | 808,709,811     | 9,319,805     | 818,029,616     |
| U.S. dollar-denominated international corporate bonds | 12,628,134      | 145,530       | 12,773,664      |
| Total investments                                     | 6,128,663,652   | 70,628,489    | 6,199,292,141   |
| Invested securities lending collateral                | 190,445,425     | 2,194,748     | 192,640,173     |
| <u>Capital assets</u>                                 |                 |               |                 |
| Land  | 264,241         | 3,045         | 267,286         |
| Building and building improvements                    | 3,512,405       | 40,478        | 3,552,883       |
| Furniture, fixtures, and equipment                    | 1,804,429       | 20,795        | 1,825,224       |
| Total capital assets                                  | 5,581,075       | 64,318        | 5,645,393       |
| Accumulated depreciation                              | (2,427,076)     | (27,970)      | (2,455,046)     |
| Net capital assets                                    | 3,153,999       | 36,348        | 3,190,347       |
| Prepaid expenses and other                            | 49,739          | 573           | 50,312          |
| Total assets  | 6,990,043,005   | 81,578,077    | 7,071,621,082   |
| <b>Liabilities</b>                                    |                 |               |                 |
| Administrative expense payables                       | 2,178,935       | 25,111        | 2,204,046       |
| Investment purchases payables                         | 23,171,914      | 267,040       | 23,438,954      |
| Securities lending collateral                         | 200,018,349     | 2,305,069     | 202,323,418     |
| Investment incentive fees payable                     | 11,236,944      | 129,498       | 11,366,442      |
| Investment income payable                             | 25,294,771      | 291,504       | 25,586,275      |
| Employee vacation and overtime liability              | 518,737         | 5,978         | 524,715         |
| Total liabilities                                     | 262,419,650     | 3,024,200     | 265,443,850     |
| Net assets held in trust for pension benefits         | \$6,727,623,355 | \$78,553,877  | \$6,806,177,232 |

See accompanying *Notes to the Financial Statements*.

*Basic Financial Statements*

## STATEMENTS OF CHANGES IN PLAN NET ASSETS

PENSION TRUST FUNDS - YEAR ENDED JUNE 30, 2010

|  | MSEP            | Judicial Plan | Total           |
|--|-----------------|---------------|-----------------|
| <b>Additions</b>                               |                 |               |                 |
| <u>Contributions</u>                           |                 |               |                 |
| State contributions                            | \$ 251,226,187  | \$27,029,198  | \$ 278,255,385  |
| Member purchases of service credit             | 3,576,954       | 0             | 3,576,954       |
| Service transfer contributions                 | 10,009          | 0             | 10,009          |
| Total contributions                            | 254,813,150     | 27,029,198    | 281,842,348     |
| <u>Investment income</u>                       |                 |               |                 |
| <i>From investing activities:</i>              |                 |               |                 |
| Net appreciation in fair value of investments  | 877,590,620     | 10,113,608    | 887,704,228     |
| Interest                                       | 46,301,472      | 533,591       | 46,835,063      |
| Dividends                                      | 4,338,432       | 49,997        | 4,388,429       |
| Other  | 18,933,591      | 218,196       | 19,151,787      |
| Total investing activity income                | 947,164,115     | 10,915,392    | 958,079,507     |
| Investing activity expenses:                   |                 |               |                 |
| Management fees                                | (83,202,060)    | (958,845)     | (84,160,905)    |
| Custody fees                                   | (467,132)       | (5,383)       | (472,515)       |
| Consultant fees                                | (838,841)       | (9,667)       | (848,508)       |
| Performance measurement fees                   | (348,939)       | (4,021)       | (352,960)       |
| Internal investment activity expenses          | (3,599,288)     | (41,479)      | (3,640,767)     |
| Total investing activity expenses              | (88,456,260)    | (1,019,395)   | (89,475,655)    |
| Net income from investing activities           | 858,707,855     | 9,895,997     | 868,603,852     |
| <i>From securities lending activities:</i>     |                 |               |                 |
| Securities lending income                      | 1,020,031       | 11,755        | 1,031,786       |
| Securities lending expenses:                   |                 |               |                 |
| Borrower rebates                               | 526,125         | 6,063         | 532,188         |
| Management fees                                | (355,499)       | (4,097)       | (359,596)       |
| Total securities lending activities expenses   | 170,626         | 1,966         | 172,592         |
| Net income from securities lending activities  | 1,190,657       | 13,721        | 1,204,378       |
| Total net investment income                    | 859,898,512     | 9,909,718     | 869,808,230     |
| Miscellaneous income                           | 639,901         | 7,374         | 647,275         |
| Total additions                                | 1,115,351,563   | 36,946,290    | 1,152,297,853   |
| <b>Deductions</b>                              |                 |               |                 |
| Benefits                                       | 486,632,411     | 24,230,545    | 510,862,956     |
| BackDROP & lump sum benefits                   | 56,651,878      | 0             | 56,651,878      |
| Service transfer payments                      | 462,970         | 0             | 462,970         |
| Contribution refunds                           | 3,106           | 0             | 3,106           |
| Administrative expenses                        | 7,064,544       | 81,414        | 7,145,958       |
| Total deductions                               | 550,814,909     | 24,311,959    | 575,126,868     |
| Net increase                                   | 564,536,654     | 12,634,331    | 577,170,985     |
| Net assets held in trust for pension benefits: |                 |               |                 |
| Beginning of year                              | 6,163,086,701   | 65,919,546    | 6,229,006,247   |
| End of year                                    | \$6,727,623,355 | \$78,553,877  | \$6,806,177,232 |

See accompanying *Notes to the Financial Statements*.

*Basic Financial Statements***BALANCE SHEETS**

INTERNAL SERVICE FUNDS - AS OF JUNE 30, 2010

|   | Life & LTD  | Deferred Compensation | Total       |
|---|-------------|-----------------------|-------------|
| <b>Assets</b>                               |             |                       |             |
| Cash  | \$ 0        | \$ 8                  | \$ 8        |
| Premiums receivable                         | 1,013,226   | 0                     | 1,013,226   |
| Accounts receivable other                   | 0           | 129,521               | 129,521     |
| Due to/(due from)                           | (624,624)   | 624,624               | 0           |
| Investments at fair value                   | 3,047,746   | 55,327                | 3,103,073   |
| Total assets                                | \$3,436,348 | \$809,480             | \$4,245,828 |
| <b>Liabilities and net assets</b>           |             |                       |             |
| <i>Liabilities</i>                          |             |                       |             |
| Premiums payable                            | \$2,999,451 | \$ 0                  | \$2,999,451 |
| Deferred compensation contributions payable | 0           | 55,327                | 55,327      |
| Checks outstanding net of deposits          | 1,858       | 0                     | 1,858       |
| Other                                       | 404,922     | 0                     | 404,922     |
| Total liabilities                           | 3,406,231   | 55,327                | 3,461,558   |
| <i>Unrestricted net assets</i>              | 30,117      | 754,153               | 784,270     |
| Total liabilities and net assets            | \$3,436,348 | \$809,480             | \$4,245,828 |

See accompanying *Notes to the Financial Statements*.**STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN PLAN NET ASSETS**

INTERNAL SERVICE FUNDS - YEAR ENDED JUNE 30, 2010

|  | Life & LTD   | Deferred Compensation | Total        |
|--|--------------|-----------------------|--------------|
| <b>Operating revenues</b>                          |              |                       |              |
| Premium receipts                                   | \$29,098,799 | \$ 0                  | \$29,098,799 |
| Deferred compensation receipts                     | 0            | 69,143,267            | 69,143,267   |
| Miscellaneous income                               | 436,488      | 602,881               | 1,039,369    |
| Total operating revenues                           | 29,535,287   | 69,746,148            | 99,281,435   |
| <b>Operating expenses</b>                          |              |                       |              |
| Premium disbursements                              | 29,077,825   | 0                     | 29,077,825   |
| Deferred compensation disbursements                | 0            | 69,143,267            | 69,143,267   |
| Premium refunds                                    | 20,974       | 0                     | 20,974       |
| Administrative expenses                            | 619,916      | 177,104               | 797,020      |
| Total operating expenses                           | 29,718,715   | 69,320,371            | 99,039,086   |
| Operating revenues over (under) operating expenses | (183,428)    | 425,777               | 242,349      |
| <b>Non-operating revenues</b>                      |              |                       |              |
| Investment income                                  | 9,759        | 57                    | 9,816        |
| Net revenues over (under) expenses                 | (173,669)    | 425,834               | 252,165      |
| Net assets beginning of year                       | 203,786      | 328,319               | 532,105      |
| Net assets end of year                             | \$ 30,117    | \$ 754,153            | \$ 784,270   |

See accompanying *Notes to the Financial Statements*.



*Basic Financial Statements*

## STATEMENTS OF CASH FLOWS

INTERNAL SERVICE FUNDS - YEAR ENDED JUNE 30, 2010

|   | Life & LTD    | Deferred Compensation | Total         |
|---|---------------|-----------------------|---------------|
| <b>Cash flows from operating activities</b>   |               |                       |               |
| Cash received from employer and members   | \$ 29,872,759 | \$ 69,424,109         | \$ 99,296,868 |
| Payments to outside carriers  | (28,958,347)  | (69,130,434)          | (98,088,781)  |
| Refunds of premiums to members  | (20,974)      | 0                     | (20,974)      |
| Cash payments to employees for services   | (216,856)     | (136,033)             | (352,889)     |
| Cash payments to other suppliers of goods and services  | (237,194)     | (144,859)             | (382,053)     |
| Net cash provided by operating activities   | 439,388       | 12,783                | 452,171       |
| <b>Cash flows from noncapital financing activities</b>  |               |                       |               |
| Implicit funding of checks outstanding net of deposits  | 1,858         | 0                     | 1,858         |
| Implicit repayment of prior years checks outstanding net of deposits  | (2,810)       | 0                     | (2,810)       |
| Net cash used in noncapital financing activities  | (952)         | 0                     | (952)         |
| <b>Cash flows from investing activities</b>   |               |                       |               |
| Purchase of investment securities   | (655,323,693) | (7,468,206)           | (662,791,899) |
| Proceeds from sale and maturities of investment securities  | 654,875,498   | 7,455,374             | 662,330,872   |
| Cash received from investment income  | 9,759         | 57                    | 9,816         |
| Net cash used by investing activities   | (438,436)     | (12,775)              | (451,211)     |
| Net increase in cash  | 0             | 8                     | 8             |
| Cash balances beginning of year   | 0             | 0                     | 0             |
| Cash balances end of year   | \$ 0          | \$ 8                  | \$ 8          |
| <b>Reconciliation of operating revenues over (under) operating expenses to net cash provided by operating activities</b>        |               |                       |               |
| Operating revenues over (under) operating expenses  | \$ (183,428)  | \$ 425,777            | \$ 242,349    |
| <i>Adjustments to reconcile operating revenues over (under) operating expenses to net cash provided by operating activities</i> |               |                       |               |
| Change in assets and liabilities:   |               |                       |               |
| (Increase) decrease in operational accounts receivable  | 483,754       | (468,321)             | 15,433        |
| Increase in operational accounts payable  | 139,062       | 55,327                | 194,389       |
| Total adjustments   | 622,816       | (412,994)             | 209,822       |
| Net cash provided by operating activities   | \$ 439,388    | \$ 12,783             | \$ 452,171    |

See accompanying *Notes to the Financial Statements*.

# NOTES TO THE FINANCIAL STATEMENTS

YEAR ENDED JUNE 30, 2010

## (1) Plan Descriptions and Contribution Information

### *Missouri State*

#### *Employees' Plan (MSEP)*

The MSEP is a single-employer, public employee retirement plan with two benefit structures known as the MSEP (closed plan) and MSEP 2000, which are administered by the Missouri State Employees' Retirement System (MOSERS) in accordance with Sections 104.010 and 104.312 to 104.1215 of the Revised Statutes of Missouri (RSMo). As established under Section 104.320, RSMo, MOSERS is a body corporate and an instrumentality of the state. In the system are vested the powers and duties specified in Sections 104.010 and 104.312 to 104.1215, RSMo and such other powers as may be necessary or proper to enable it, its officers, employees, and agents to carry out fully and effectively all the purposes of Sections 104.010 and 104.312 to 104.1215, RSMo.

#### **Prospective Plan Changes**

On July 19, 2010, Governor Jay Nixon signed into law House Bill No. 1, that created new tier defined benefit plans for members of the Missouri State Employees' Retirement System (MOSERS) and the MoDOT and Patrol Employees' Retirement System (MPERS) hired on or after January 1, 2011.

The new tier for MOSERS members (MSEP 2011) will include all new employees first hired on or after January 1, 2011, as members of the MSEP 2000.

Highlights of this change include:

- Changes in normal retirement eligibility for most classifications designed to coincide with the current ultimate minimum eligibility age of 67 for unreduced social security benefits for those born after 1959.
- "Rule of 80" will be increased to a "Rule of 90" and the corresponding minimum eligibility age will be increased from age 48 to age 55.
- The age for early retirement for general employees will be increased from age 57 to age 62 (option available with a reduction).
- Five-year vesting will be increased to ten-year vesting for general employees.
- Member contributions for all classifications equivalent to 4% of pay on a pretax basis; 4% interest will be credited to member accounts at the end of the fiscal year based on the beginning fiscal year balance.
- Elimination of subsidized service purchases for all employee classifications. This will include elimination of subsidized purchases of military and other full-time nonfederal governmental service.
- Elimination of the portability provision that was enacted in the MSEP 2000 Plan.
- Elimination of the BackDROP provision that was enacted in 2002.

The MSEP 2011 does not impact employees currently or previously employed by the state (current members of MOSERS).

Responsibility for the operation and administration of the system is vested in the MOSERS Board of Trustees. Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the MSEP is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as a pension trust fund.

Generally, all full-time state employees hired before July 2000, who were not covered under another state-sponsored retirement plan are eligible for membership in the MSEP (closed plan). Full-time state employees hired after July 2000 and before January 2011 are eligible for membership in the MSEP 2000. Employees hired on or after January 2011 will be eligible for membership in the MSEP 2011 tier of the MSEP 2000. MOSERS participates as an employer in the MSEP.

#### **As of the June 30, 2010 valuation, membership in the MSEP consisted of the following:**

|  |                |
|--|----------------|
| Retirees and beneficiaries currently receiving benefits          | 33,251         |
| Terminated employees entitled to, but not yet receiving benefits | 17,399         |
| <b>Active</b>  |                |
| Vested   | 37,020         |
| Nonvested  | 16,458         |
| <b>Total membership</b>  | <u>104,128</u> |

The MSEP provides retirement, survivor, and disability benefits.

***MSEP (closed plan)***

General state employees are fully vested for benefits upon receiving 5 years of credited service. Under the MSEP (closed plan), general employees may retire with full benefits upon the earliest of attaining:

- Age 65 and active with 4 years of service;
- Age 65 with 5 years of service;
- Age 60 with 15 years of service; or
- Age 48 with age and service equaling 80 or more - "Rule of 80."

General employees may retire early at age 55 with at least 10 years of service with reduced benefits.

The base benefit in the general employee plan is equal to 1.6% multiplied by the final average pay multiplied by years of credited service.

For members hired prior to August 28, 1997, cost-of-living adjustments (COLAs) are provided annually based on 80% of the percentage increase in the average consumer price index (CPI) from one year to the next, with a minimum rate of 4% and maximum rate of 5% until the cumulative amount of COLAs equals 65% of the original benefit. Thereafter, the 4% minimum rate is eliminated. For members hired on or after August 28, 1997, COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Qualified, terminated-vested members may make a one-time election to receive the present value of their benefit in a lump sum payment.

To qualify, a member must have terminated with at least 5, but less than 10 years of service, be less than age 60, and have a benefit present value of less than \$10,000.

Contributions are determined through annual actuarial valuations. Administration of the MSEP is financed through contributions to this plan from the state of Missouri and investment earnings.

***MSEP 2000***

General state employees are fully vested for benefits upon receiving 5 years of credited service. Under the MSEP 2000, general employees may retire with full benefits upon the earliest of attaining:

- Age 62 with 5 years of service; or
- Age 48 with age and service equaling 80 or more - "Rule of 80."

General employees may retire early at age 57 with at least 5 years of service with reduced benefits.

The base benefit in the general employee plan is equal to 1.7% multiplied by final average pay multiplied by years of credited service.

For those retiring under "Rule of 80," an additional temporary benefit equivalent to 0.8% multiplied by final average pay multiplied by years of credited service is payable until age 62.

COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Contributions are determined through annual actuarial valuations.

Administration of the MSEP 2000 is financed through contributions to this plan from the state of Missouri and investment earnings.

The state of Missouri is required to make all contributions to the MSEP. Prior to September 1, 1972, contributions by members were required. Accumulated employee contributions made prior to that time, plus interest through August 28, 1997, are refundable to the member or designated beneficiaries upon request. For a more detailed summary of benefits for general employees and a description of benefits available to legislators and elected officials under the MSEP (closed plan) and the MSEP 2000, refer to the *Summary of Plan Provisions* contained in the *Actuarial Section* of this report.

***Judicial Plan***

The Judicial Plan is a single-employer, public employee retirement plan administered in accordance with Sections 476.445 to 476.690, RSMo. Responsibility for the operation and administration of the Judicial Plan is vested in the MOSERS Board of Trustees. Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the Judicial Plan is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as a pension trust fund.

Judges and commissioners of the supreme court or the court of appeals, judges of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, justices of the peace, or commissioners or deputy commissioners of the circuit court appointed after February 29, 1972, commissioners of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo, commissioners of the drug court pursuant to Section 478.466, RSMo, or commissioners of the family court are eligible for membership in the Judicial Plan.

**As of the June 30, 2010 valuation, membership in the Judicial Plan consisted of the following:**

|  |            |
|--|------------|
| Retirees and beneficiaries currently receiving benefits          | 465        |
| Terminated employees entitled to, but not yet receiving benefits | 42         |
| <b>Active</b>  |            |
| Vested   | 402        |
| Nonvested  | 0          |
| <b>Total membership</b>  | <u>909</u> |

The Judicial Plan provides retirement, survivor, and disability benefits. Members are immediately eligible for benefits.

Under the Judicial Plan, members may retire with full benefits upon the earliest of attaining:

- Age 62 with 12 years of service;
- Age 60 with 15 years of service; or
- Age 55 with 20 years of service.

Employees may retire early at age 62 with less than 12 years of service or age 60 with less than 15 years of service with a reduced benefit that is based upon years of service relative to 12 or 15 years.

In the Judicial Plan, the base benefit for members with 12 or more years of service is equivalent to 50% of compensation on the highest court served.

For members hired prior to August 28, 1997, COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, with a minimum rate of 4% and maximum rate of 5% until the cumulative amount of COLAs equals 65% of the original benefit. Thereafter, the 4% minimum rate is eliminated. For members hired on or after August 28, 1997, COLAs are provided annually based on 80% of the percentage increase in the average CPI from one year to the next, up to a maximum rate of 5%.

Qualified, terminated-vested members may make a one-time election to receive the present value of their benefit in a lump sum payment. To qualify, a member must have terminated with at least 5, but less than 10 years of service, be less than age 60, and have a benefit present value of less than \$10,000.

Funding of the Judicial Plan on an actuarial basis began on July 1, 1998. Contributions are determined through annual actuarial valuations. The state of Missouri is required to make all contributions to the Judicial Plan. Administration of the Judicial Plan is financed through contributions to this plan from the state of Missouri and investment earnings.

For a more detailed summary of benefits for members of the Judicial Plan, refer to the *Summary of Plan Provisions* contained in the *Actuarial Section* of this report.

Multi-year trend information regarding whether the actuarial value of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits can be found in the required supplementary information following the *Notes to the Financial Statements*.

**Schedule of Funded Status**

|                               | Actuarial<br>Valuation Date | Actuarial<br>Value of Assets<br>(a)                  | Actuarial<br>Accrued Liability<br>(AAL) Entry Age<br>(b) | Unfunded AAL<br>(UAAL)<br>(b-a) | Percent<br>Funded<br>(a/b)                           | Annual<br>Covered<br>Payroll<br>(c) | UAAL<br>Percentage of<br>Covered Payroll<br>((b-a)/c) |
|-------------------------------|-----------------------------|--|--|---------------------------------|--|-------------------------------------|---|
| MSEP                          | 6/30/2010                   | \$ 7,923,377,393                                     | \$ 9,853,155,445   | \$ 1,929,778,052                | 80.4%  | \$ 1,945,095,321                    | 99.2%   |
| Judges                        | 6/30/2010                   | 88,976,738   | 382,012,773  | 293,036,035                     | 23.3   | 46,112,730                          | 635.5   |
|                               |                             | <b>MSEP</b>  |  |                                 | <b>Judicial Plan</b>                                 |                                     |   |
| Valuation date                |                             | 6/30/2010  |  |                                 | 6/30/2010  |                                     |   |
| Actuarial cost method         |                             | Entry age  |  |                                 | Entry age  |                                     |   |
| Amortization method           |                             | Level percent  |  |                                 | Level percent  |                                     |   |
| Remaining amortization period |                             | 30 years open  |  |                                 | 30 years open  |                                     |   |
| Asset valuation method        |                             | 5-year<br>smoothed market<br>+/- 25% market corridor |  |                                 | 5-year<br>smoothed market<br>+/- 25% market corridor |                                     |   |
| Actuarial assumptions:        |                             |  |  |                                 |  |                                     |   |
| Investment rate of return     |                             | 8.5%   |  |                                 | 8.5%   |                                     |   |
| Projected salary increases    |                             | 4%   |  |                                 | 4%   |                                     |   |
| COLAs                         |                             | 2.56%*   |  |                                 | 2.56%**  |                                     |   |
| Price inflation               |                             | 3.2%   |  |                                 | 3.2%   |                                     |   |

\* On a compound basis, 4% for the first 12 years, 3.1% for the 13<sup>th</sup> year, and 2.56% per year thereafter.

\*\* On a compound basis, 4% for the first 12 years, 3.06% for the 13<sup>th</sup> year, and 2.56% per year thereafter.

### ***Missouri State Insured Defined Benefit Insurance Plan***

The Missouri State Insured Defined Benefit Insurance Plan is accounted for as an internal service fund of the state of Missouri and is administered by MOSERS. It provides basic life insurance in an amount equal to one times annual salary while actively employed (with a \$15,000 minimum) to eligible members of the MSEP and MSEP 2000 (except employees of the Missouri Department of Conservation and certain state colleges and universities), and members of the Judicial Plan and certain members of the Public School Retirement System.

The plan also provides duty-related death benefits, optional life insurance for active employees and retirees who are eligible for basic coverage, and a long-term disability plan for certain eligible members.

For a more detailed description of insurance benefits, refer to the *Summary of Plan Provisions - Life Insurance Plans* in the *Actuarial Section* of this report.

Due to the nature of MOSERS' reliance on funding from the state of Missouri and the overall control of the plan document by the legislative and executive branches of state government, the Missouri State Insured Defined Benefit Insurance Plan is considered a component unit of the state of Missouri financial reporting entity and is included in the state's financial reports as an internal service fund. Administration of the Missouri State Insured Defined Benefit Insurance Plan is financed through contributions to this plan from the state of Missouri.

### ***State of Missouri's Deferred Compensation Plan***

The state of Missouri's Deferred Compensation Plan is accounted for as an internal service fund and is administered by MOSERS.

Effective September 1, 2007, legislation transferred responsibility for the administration of the state of Missouri's Deferred Compensation Plan from the State of Missouri's Deferred Compensation Commission to the MOSERS Board of Trustees. The commission was dissolved upon transfer. In order to assist in the transition, two deferred compensation commissioners (the chair of the commission and one House appointed member) remained for a period of time as ex-officio members on the MOSERS board for issues related to the deferred compensation program. This change was initiated by a legislative member



of the commission based on the belief that plan participants would benefit from MOSERS' investment and administrative expertise in monitoring the program. The plan administration of individual accounts and the investment products

available are handled by outside providers and paid from charges to the participants and revenue sharing arrangements. Investment of deferred compensation funds are managed by participants who choose from available options. MOSERS' role is to provide

investment options to the participants. MOSERS participates in the revenue sharing arrangement with the plan administrator to cover MOSERS' administrative costs and a portion of participant fees for administrative costs.

### Revenue Sharing

|        | Employee Charges | Revenue Sharing | Total        |
|--------|------------------|-----------------|--------------|
| ING    | \$ 2,072,815     | \$ 1,251,300    | \$ 3,324,115 |
| MOSERS | 0                | 602,881         | 602,881      |
| Total  | \$ 2,072,815     | \$ 1,854,181    | \$ 3,926,996 |

## (2) Summary of Significant Accounting Policies and Plan Asset Matters

### *Basis of Accounting*

The financial statements of the MSEP, the Judicial Plan, the Missouri State Insured Defined Benefit Insurance Plan and state of Missouri's Deferred Compensation Plan were prepared using the accrual basis of accounting.

Contributions are due to MOSERS when employee services have been performed and paid. Contributions are recognized as revenues when due pursuant to statutory requirements. Benefits and refunds are recognized when due and payable and expenses are recorded when the corresponding liabilities are incurred, regardless of when contributions are received or payment is made. The direct method of reporting cash flows is used.

### *Estimates*

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates

and assumptions that affect the reported amounts of net assets held in trust for pension benefits at June 30, 2010. Actual results could differ from those estimates.

### *Method Used to Value Investments*

Section 104.440, RSMo allows the board of trustees to invest the trust fund assets in accordance with the prudent person rule. Investments of the pension trust funds and the internal service funds are reported on the basis of fair market value. The schedule on page 42 provides a summary of the fair values of the investments as reported on the *Statements of Plan Net Assets* of the pension trust funds and balance sheet of the internal service funds. Fair values for the equity real estate investments are based on appraisals. Fair values of the limited partnership investments are based on valuations of the underlying companies of the limited partnerships as reported by the general partner. Certain limited partnerships reflect values on a quarter lag basis due to the nature of those investments and

the time it takes to value them. Fair value of the commingled funds are determined based on the underlying asset values. The remaining assets are primarily valued by the investment custodian using the last trade price information supplied by various pricing data vendors.

### *Cash*

Custodial credit risk for cash deposits and investments is the risk that, in the event of a bank failure, the system and plans' deposits may not be returned to them. The board adopted the following policy on June 18, 2009:

*The executive director shall require that banks managing demand deposit accounts for any retirement plan associated with MOSERS (MOSERS' defined benefit plan and the deferred compensation plan/state incentive compensation plan) to hold, at minimum, collateral security in either MOSERS' name or the state of Missouri Deferred Compensation Plan and in an amount equal to or more than the amount on deposit that exceeds the Federal Deposit Insurance Corporation*



(FDIC) insured amount. The types of collateral security shall be included on a list maintained by the State Treasurer's office in accordance with Section 30.270 RSMo, but in no case may a bank pledge collateral that does not specifically allow MOSERS to release the collateral or pledge collateral that represents securities of the pledging banks.

Cash balances represent both demand deposit accounts held at the bank and investment cash on deposit with the investment custodian. To maximize investment income, the float caused by outstanding checks is invested in an overnight sweep account, thus causing a possible negative book balance. Negative book balances are reflected in the liabilities section of the balance sheet of the internal service fund and included in the cash and short-term investments on the *Statements of Plan Net Assets* of the pension trust funds.

The table below is a schedule of the aggregate book and bank balances of all cash accounts. Funds held in the sweep account are not covered by Federal Deposit Insurance Corporation (FDIC) insurance. Effective July 1, 2009, the Repurchase Agreement was amended to remove the bank's right to substitute other appropriate securities under this agreement. Central Trust Bank pledged the following securities to

MOSERS on June 30, 2010, as collateral for overnight repurchase agreements:

- \$2,215,218 Small Business Administration Pool #508605  
– maturity date - 07/25/2016  
– fair value - \$1,347,406
- \$1,000,000 Small Business Administration Pool #507920  
– maturity date - 01/25/2019  
– fair value - \$517,078
- \$2,000,000 Small Business Administration Pool #508037  
– maturity date - 02/25/2019  
– fair value - \$1,154,780
- \$1,631,538 Small Business Administration Pool #521629  
– maturity date - 07/25/2019  
– fair value - \$1,546,881
- \$2,000,000 Small Business Administration Pool #508579  
– maturity date - 10/25/2020  
– fair value - \$1,670,171

### ***Credit Risk***

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to MOSERS. As of June 30, 2010, MOSERS' fixed income assets that are not government guaranteed represented 56% of the fixed income portfolio. In preparing this report, credit risk associated with all fixed income holdings including collateral

for repurchase agreements and securities lending collateral has been included. The tables on the following page summarize MOSERS' fixed income portfolio average credit quality and exposure levels.

As a matter of practice, there are no overarching limitations for credit risk exposures within the overall fixed income portfolio. Each individual portfolio within fixed income is managed in accordance with operational guidelines that are specific as to permissible credit quality ranges, exposure levels within individual quality tiers, and average credit quality. MOSERS is notified by the investment manager when an investment with a quality credit rating of CC or lower is purchased and in those circumstances of downgrades subsequent to purchase. In those cases, the investment manager may be given permission to hold the security, usually due to mitigating circumstances such as a very short maturity or a much higher rating from one of the other ratings agencies, but may include situations in which the investment manager believes that worst case recovery values exceed market pricing.

Credit risk for derivative instruments held by the system results from counterparty risk assumed by MOSERS. This is essentially the

### **Aggregate Book and Bank Balances**

|  | Cash Balances |                           |
|--|---------------|---------------------------|
|  | Book          | Bank/Investment Custodian |
| Pension Trust Funds - investment custodian                         | \$34,271,330  | \$34,271,330              |
| Pension Trust Funds - demand deposits                              | (10,434,927)  | 4,026                     |
| Internal Service Fund - insurance plan demand deposits             | (1,858)       | 64                        |
| Internal Service Fund - deferred compensation plan demand deposits | 8             | 8                         |

risk that the counterparty to a MOSERS transaction will be unable to meet its obligation. Information regarding MOSERS' credit risk related to derivatives is found under the derivatives disclosures on page 39- 41 of these notes.

Policies related to credit risk pertaining to MOSERS' securities lending program are found under the securities lending disclosures on page 40 of these notes.

### ***Concentration of Credit Risk***

Concentration of credit risk is the risk of loss that may be attributed

to the magnitude of a government's investment in a single-issuer.

There is no single-issuer exposure within the MOSERS' portfolio that comprises 5% or more of the overall portfolio. Therefore, there is no concentration of credit risk.

### ***Interest Rate Risk***

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. This risk is managed by using the effective duration or option adjusted methodology. It is widely used in the management of fixed

income portfolios by quantifying the risk of interest rate changes. This methodology takes into account optionality on bonds and scales the risk of price changes on bonds depending upon the degree of change in rates and the slope of the yield curve. Within the investment policy, operational guidelines specify the degree of interest rate risk taken within the system's fixed income portfolios, with the exception of some portfolios in which credit risk is the predominant factor and is also controlled by specific guidelines.

### **Average Credit Quality and Exposure Levels of Nongovernment Guaranteed Securities**

| Fixed Income Security Type           | Market Value<br>June 30, 2010 | Percent of all Fixed<br>Income Assets | Weighted Average<br>Credit Quality | Ratings Dispersion<br>Requiring Further Disclosure |
|--------------------------------------|-------------------------------|---------------------------------------|------------------------------------|--|
| Mortgages                            | \$ 306,008                    | 0.0%                                  | Agency                             | None   |
| Collateralized mortgage obligations  | 114,558,889                   | 5.6                                   | CCC+                               | See table below                                    |
| Asset-backed securities              | 79,638,370                    | 3.9                                   | BBB+                               | See table below                                    |
| Corporate bonds                      | 240,360,288                   | 11.9                                  | BBB                                | See table below                                    |
| Bank loans                           | 88,623,498                    | 4.4                                   | B                                  | See table below                                    |
| Bank deposits                        | 200,049,667                   | 9.9                                   | FDIC insured                       | None   |
| Repurchase agreements                | 300,002,667                   | 14.8                                  | Not rated                          | None   |
| Pooled investments                   | 118,507,779                   | 5.8                                   | AAA                                | See table below                                    |
| Total nongov't guaranteed securities | \$1,142,047,166               | 56.3%                                 |                                    |  |
| Total fixed income securities        | \$2,027,743,574               |                                       |                                    |  |

### **Ratings Dispersion Detail - Market Value**

| Credit Rating Level | Collateralized<br>Mortgage Obligations | Asset-Backed<br>Securities | Corporate<br>Bonds | Bank Loans   | Pooled<br>Investments |
|---------------------|--|----------------------------|--------------------|--------------|-----------------------|
| Agency              | \$ 4,613,348                           |                            |                    |              |                       |
| AAA                 |  | \$ 35,193,524              | \$ 31,944,197      |              | \$ 118,263,490        |
| AA                  | 723,776                                | 67,248                     | 16,758,130         |              |                       |
| A                   | 3,359,981                              | 816,392                    | 96,517,241         |              |                       |
| BBB                 |  | 18,548,012                 |                    | \$ 473,133   |                       |
| BB                  | 566,266                                | 1,792,553                  | 18,678,424         | 33,360,254   |                       |
| B                   | 12,941,334                             | 13,850,419                 | 47,738,811         | 39,455,553   |                       |
| CCC                 | 55,439,623                             | 7,283,158                  | 16,667,495         | 7,826,977    |                       |
| CC                  | 29,698,280                             | 1,134,080                  | 23,547             |              |                       |
| C                   |  |                            |                    | 1,218,768    |                       |
| D                   | 7,216,281                              | 952,984                    |                    |              |                       |
| Not rated           |  |                            | 12,032,443         | 6,288,813    | 244,289               |
|                     | \$114,558,889                          | \$79,638,370               | \$240,360,288      | \$88,623,498 | \$118,507,779         |

It is believed that the reporting of effective duration found in the tables below quantifies to the fullest extent possible the interest rate risk of the system's fixed income assets.

MOSERS invests in mortgage-backed securities and securities where the issuer has the right to call the securities, which are reported at fair value in the *Statements of Plan Net Assets* of the pension trust funds. As a result, these securities are sensitive to prepayments, which are likely in declining interest rate environments. MOSERS invests in these securities to diversify the portfolio and increase the return while minimizing the extent of risk. This

prepayment risk is incorporated in the effective duration calculation used in the interest rate risk analysis.

As of fiscal year-end, MOSERS was invested in two structured bonds (inverse variable-rate notes) in which the coupon on the bonds varies inversely with the one month London Inter-Bank Offer Rate (LIBOR). As interest rates increase, the coupon rate declines. As of June 30, 2010, the notes had a fair value of \$1,530,325 and an average coupon of 6.26%. Manager guidelines are very specific as to the use of structurally complex securities and do not allow for coupon changes based off of inappropriate indices or that change

disproportionately to the rate changes experienced in traditional interest rate markets.

### ***Repurchase Agreements***

Repurchase agreements (repos) are basically a secured loan with the collateral held at a custodian bank. Typical collateral for repos include treasury securities, agency securities, mortgage-backed securities, investment grade corporate bonds, commercial paper, and common stock. Repos are typically done for an overnight term; however, they can be done for a longer term. MOSERS enters into repo transactions to earn interest on short-term funds.

### **Effective Duration of Fixed Income Assets by Security Type**

| Fixed Income Security Type         | Market Value<br>June 30, 2010 | Percent of all<br>Fixed Income Assets | Weighted Average<br>Effective Duration (Years) | Interest Rate Risk Requiring<br>Further Disclosure |
|------------------------------------|-------------------------------|---------------------------------------|--|--|
| U.S. treasuries                    | \$ 845,665,076                | 41.7%                                 | 4.6  | see table below                                    |
| Gov't guaranteed mortgages         | 31,332                        | 0.0                                   | 3.0  | none   |
| Mortgages                          | 306,008                       | 0.0                                   | 1.6  | none   |
| Collateralized mortgage obligation | 114,558,889                   | 5.6                                   | 0.1  | none   |
| Asset-backed securities            | 79,638,370                    | 3.9                                   | 0.0  | none   |
| Corporate bonds                    | 240,360,288                   | 11.9                                  | 1.1  | none   |
| Bank loans                         | 88,623,498                    | 4.4                                   | 0.2  | none   |
| Bank deposits                      | 200,049,667                   | 9.9                                   | 0.0  | none   |
| Repurchase agreements              | 340,002,667                   | 16.8                                  | 0.0  | none   |
| Pooled investments                 | 118,507,779                   | 5.8                                   | 0.0  | none   |
|                                    | <u>\$2,027,743,574</u>        | <u>100.0%</u>                         | <u>2.1</u>                                     |  |

### **Effective Duration Analysis of U.S. Treasuries**

|                              | Market Value<br>June 30, 2010 | Average Effective Duration<br>of the Security Type | Contribution to<br>Effective Duration |
|------------------------------|-------------------------------|--|---------------------------------------|
| Less than 1 year to maturity | \$ 76,902,813                 | 0.0  | 0.0                                   |
| 1- to 10-year maturities     | 443,691,088                   | 2.4  | 1.2                                   |
| Long coupon treasuries       | 280,591,275                   | 7.7  | 2.6                                   |
| Long stripped treasuries     | 44,479,899                    | 14.5   | 0.8                                   |
|                              | <u>\$845,665,075</u>          |  | <u>4.6</u>                            |

### **Repurchase Agreements by Collateral Type**

| Collateral Type | Market Value<br>June 30, 2010 | Market Value of Repurchase Agreement<br>June 30, 2010 | Percent Over<br>Collateralized |
|-----------------|-------------------------------|---|--------------------------------|
| U.S. treasuries | \$ 44,207,359                 | \$ 40,000,000   | 10.5%                          |
| Common stock    | 324,000,085                   | 300,002,667   | 8.0                            |
|                 | <u>\$368,207,444</u>          | <u>\$340,002,667</u>                                  | <u>8.3</u>                     |

**Foreign Currency Risk**

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. MOSERS' currency risk exposures, or exchange rate risk, primarily reside within MOSERS' international equity investment holdings. MOSERS' implementation policy is to allow external managers to decide what action to take regarding their respective portfolio's foreign currency exposures using currency

forward contracts. MOSERS' exposure to foreign currency risk in U.S. dollars as of June 30, 2010, is shown in the table below.

**Derivatives**

Derivative instruments are financial contracts whose values depend on the values of one or more underlying assets, reference rates, or financial indexes. They include futures contracts, swap contracts, options contracts, and forward foreign currency exchange.

While the board has no formal policy specific to derivatives, the MOSERS investment implementation program, through its external managers, holds investments in futures contracts, swap contracts, and forward foreign currency exchange. MOSERS enters into these certain derivative instruments primarily to enhance the performance and reduce the volatility of its portfolio. MOSERS enters into swaps and futures contracts to gain or hedge exposure to certain markets

**Currency Exposures by Asset Class**

| Currency                      | Cash & Cash Equivalents | Equities      | Fixed Income | Alternatives | Total           |
|-------------------------------|-------------------------|---------------|--------------|--------------|-----------------|
| Australian Dollar             |                         | \$ 6,866,850  |              |              | \$ 6,866,850    |
| Brazilian Real                | \$ 360,684              | 13,586,036    |              |              | 13,946,720      |
| Canadian Dollar               | 2,271                   | 2,974,004     |              |              | 2,976,275       |
| Chilean Peso                  |                         | 113,746       | \$ 43,867    |              | 157,613         |
| Czech Koruna                  |                         | 2,433,838     |              |              | 2,433,838       |
| Danish Krone                  |                         | 4,924,072     |              |              | 4,924,072       |
| Egyptian Pound                | 1,841                   | 2,312,498     |              |              | 2,314,339       |
| Euro                          | 94,853                  | 155,617,621   | 7,647,392    | \$99,752,915 | 263,112,781     |
| Hong Kong Dollar              | 491,976                 | 47,915,393    |              |              | 48,407,369      |
| Hungarian Forint              | 35,200                  | 2,414,009     |              |              | 2,449,209       |
| Indian Rupee                  | 117,107                 | 7,254,302     |              |              | 7,371,409       |
| Indonesian Rupiah             |                         | 2,937,361     |              |              | 2,937,361       |
| Israeli Shekel                | 3                       | 20            |              |              | 23              |
| Japanese Yen                  | 2,339,755               | 337,140,539   |              |              | 339,480,294     |
| Malaysian Ringgit             | (1,497)                 | 4,095,348     |              |              | 4,093,851       |
| Mexican Peso                  | 233                     | 11,690,293    |              |              | 11,690,526      |
| Norwegian Krone               |                         | 1,766,624     |              |              | 1,766,624       |
| Peruvian Nuevo Sol            |                         | 74,862        |              |              | 74,862          |
| Philippines Peso              | (23,897)                | 647,787       |              |              | 623,890         |
| Polish Zloty                  |                         | 1,608,352     |              |              | 1,608,352       |
| Russian Ruble                 |                         | 303,015       |              |              | 303,015         |
| Singapore Dollar              |                         | 37,553,707    |              |              | 37,553,707      |
| South African Rand            | 4                       | 3,363,311     |              |              | 3,363,315       |
| South Korean Won              | 54,833                  | 34,438,802    | 2,009,992    |              | 36,503,627      |
| Sri Lanka Rupee               |                         | 2,516         |              |              | 2,516           |
| Swedish Krona                 |                         | 13,846,101    |              |              | 13,846,101      |
| Swiss Franc                   | 77                      | 68,751,576    |              |              | 68,751,653      |
| Taiwan New Dollar             | 1,530                   | 23,073,656    |              |              | 23,075,186      |
| Thai Baht                     | 410                     | 21,635,622    |              |              | 21,636,032      |
| Turkish Lira                  |                         | 11,727,412    |              |              | 11,727,412      |
| United Kingdom Pound Sterling | 21,869                  | 100,079,166   | 2,748,593    |              | 102,849,628     |
| Chinese Yuan Renminbi         |                         | 53,230        |              |              | 53,230          |
| Venezuela Boliviar            | 53,623                  |               |              |              | 53,623          |
| Moroccan Dirham               | (727)                   | 216,070       |              |              | 215,343         |
| Ukraine Hryvana               |                         | 56            |              |              | 56              |
| Grand Total                   | \$3,550,148             | \$921,417,795 | \$12,449,844 | \$99,752,915 | \$1,037,170,702 |

and to manage interest rate risk and foreign currency forward contracts primarily to hedge foreign currency exposure. The tables on the following page summarize the various contracts in the portfolio as of June 30, 2010. The notional values associated with these derivative instruments are generally not recorded on the financial statements; however, the amounts for the exposure on these instruments are recorded in the investments at fair value in the *Statements of Net Plan Assets* and the total changes in fair value for the year are included as investment income in the *Statements of Changes in Plan Net Assets*. For the year ending June 30, 2010, the change in fair value in the swap contracts resulted in \$26.4 million of investment income. The change in fair value in the futures contracts resulted in \$121.8 million of investment income and the change in fair value of the foreign exchange contracts resulted in a loss of \$86,762 of investment income. The interest rate risk associated with the swaps and futures tables are included on the following page. MOSERS does not anticipate additional significant market risk from the swap arrangements.

MOSERS could be exposed to risk if the counterparties to the contracts are unable to meet the terms of the contracts. MOSERS' investment managers seek to control this risk through counterparty credit evaluations and approvals, counterparty credit limits, and collateral posting procedures. MOSERS anticipates the counterparties will be able to satisfy their obligations under the contracts.

Investments in limited partnerships and commingled funds may include derivatives that are not shown in the derivative totals.

### *Securities Lending Program*

The board of trustees' investment policy permits the pension trust funds to participate in a securities lending program. Fixed income, international equity, and domestic equity securities of the pension trust funds are loaned to participating brokers who provide collateral in the form of cash, U.S. treasury or government agency securities, or letters of credit issued by approved banks. Collateral must be provided in the amount of 102% of market value for domestic loans and 105% of market value for international loans. MOSERS does not have the authority to pledge or sell collateral securities without borrower default. Securities on loan at fiscal year-end for cash collateral and on loan for noncash collateral are presented in the schedule on page 42.

On June 30, 2010, MOSERS had no credit risk exposure to borrowers because the collateral amounts received exceeded amounts out on loan.

As of June 30, 2010, Deutsche Bank AG, New York Branch, served as the agent for the fixed income, domestic equity and international equity securities lending programs. In this capacity, MOSERS reduces credit risk by allowing Deutsche Bank to lend these securities to a diverse group of dealers on behalf of MOSERS. Indemnification against dealer default is provided by Deutsche

Bank AG, a "AA-rated" bank. With each of MOSERS' securities lending programs, a majority of loans are open loans and can be terminated on demand by either MOSERS or the borrower. Net income from the three lending programs is split on an 85/15 basis between MOSERS and Deutsche Bank, respectively.

Daily monitoring of securities that are on loan ensures proper collateralization levels and mitigates counterparty risk. Cash collateral from all three programs is commingled and invested in a separately managed short-term investment fund for MOSERS. This cash collateral fund is managed by Deutsche Bank. On June 30, 2010, the cash collateral fund had a market value of \$192,640,173 and a weighted average maturity of 11 days. During the fiscal year, MOSERS experienced a decline in loaned securities. The value of invested collateral continues to be below the level of liabilities. If all loans were terminated at June 30, 2010, MOSERS would have needed to make up the \$10 million difference between the invested collateral and the collateral liability. For all of the securities lending operational services, the custodian is paid an annual fee, which is netted against MOSERS' earnings in the securities lending programs managed by Deutsche Bank.



**Futures Contracts**

| Futures Contract            | 2010 Expiration Date | Long/Short | Notional/Fair Value  | Exposure           |
|-----------------------------|----------------------|------------|----------------------|--------------------|
| U.S. Ultra Bond             | September            | Long       | \$ 26,347,625        | \$ (137,313)       |
| U.S. Long Treasury Bond     | September            | Long       | 11,475,000           | (75,000)           |
| U.S. 10-year Treasury Notes | September            | Long       | 165,193,188          | (17,656)           |
| U.S. 2-year Treasury Notes  | September            | Long       | 180,970,859          | 34,703             |
| S&P 500 Index               | September            | Long       | 216,047,970          | 1,830,915          |
| S&P 400 Index               | September            | Long       | 55,380,000           | 280,800            |
| Gold 100 Oz                 | August               | Long       | 65,535,340           | (184,100)          |
| Total                       |                      |            | <u>\$720,949,982</u> | <u>\$1,732,349</u> |

**Swap Contracts**

| MOSERS Receives                                  | Maturity Date | Notional Value         | Exposure            | Index Counterparty | Counterparty Credit Rating* |
|--|---------------|------------------------|---------------------|--------------------|-----------------------------|
| S&P 500 Total Return                             | 4/29/2011     | \$ 102,276,851         | \$ 5,649,818        | Deutsche Bank      | Aa3/A+                      |
| S&P 500 Total Return                             | 7/30/2010     | 86,849,665             | 4,797,613           | JP Morgan Chase    | Aa3/A+                      |
| S&P 100 Consumer Staples Total Return            | 10/29/2010    | 61,070,828             | 4,806,599           | Goldman Sachs      | A1/A                        |
| S&P 100 Energy Total Return                      | 10/29/2010    | 55,247,571             | 10,671,770          | Goldman Sachs      | A1/A                        |
| S&P 100 Health Care Total Return                 | 10/29/2010    | 59,682,561             | 5,255,126           | Goldman Sachs      | A1/A                        |
| S&P 100 Technology Total Return                  | 10/29/2010    | 61,099,274             | 10,079,908          | Goldman Sachs      | A1/A                        |
| MSCI EAFE Total Return                           | 5/31/2011     | 50,164,091             | 615,569             | Deutsche Bank      | Aa3/A+                      |
| MSCI EASE Total Return                           | 6/15/2011     | 81,107,923             | 3,892,077           | JP Morgan Chase    | Aa3/A+                      |
| MSCI EASE Total Return                           | 5/25/2011     | 105,037,455            | (5,037,455)         | JP Morgan Chase    | Aa3/A+                      |
| MSCI EASE Total Return                           | 2/28/2011     | 99,297,418             | 956,448             | JP Morgan Chase    | Aa3/A+                      |
| Three Month LIBOR Quarterly                      | 8/31/2010     | 34,256,303             | (689,725)           | Deutsche Bank      | Aa3/A+                      |
| MSCI EASE Total Return                           | 2/28/2011     | 30,769,397             | 296,375             | JP Morgan Chase    | Aa3/A+                      |
| Barclays Capital Aggregate                       | 12/31/2010    | 35,143,001             | 0                   | Goldman Sachs      | A1/A                        |
| Barclays Capital Aggregate                       | 9/30/2010     | 12,188,177             | (188,177)           | JP Morgan Chase    | Aa3/A+                      |
| Barclays Capital Aggregate                       | 2/28/2011     | 10,958,230             | (169,188)           | JP Morgan Chase    | Aa3/A+                      |
| Barclays Capital Aggregate                       | 8/31/2010     | 68,050,656             | (1,050,656)         | Merrill Lynch      | A2/A                        |
| Three Month LIBOR Quarterly                      | 6/16/2014     | 10,000,000             | 12,128              | Deutsche Bank      | Aa3/A+                      |
| Three Month LIBOR Quarterly                      | 12/10/2014    | 10,000,000             | 6,946               | Deutsche Bank      | Aa3/A+                      |
| S&P GSCIER Custom minus S&P GSCIER               | 3/11/2011     | 50,000,000             | 44,811              | Merrill Lynch      | A2/A                        |
| S&P GSCI Crude ER Custom minus S&P GSCI Crude ER | 12/14/2010    | 20,000,000             | 23,486              | Goldman Sachs      | A1/A                        |
| S&P GSCITR Custom                                | 3/31/2011     | 102,948,791            | (326,578)           | Merrill Lynch      | A2/A                        |
| S&P GSCITR Custom                                | 1/31/2011     | 47,569,167             | (150,432)           | Merrill Lynch      | A2/A                        |
| Total  |               | <u>\$1,193,717,359</u> | <u>\$39,496,463</u> |                    |                             |

\* Ratings obtained from Moody's/Fitch

**Foreign Currency Forward Contracts at June 30, 2010**

|   |                      |
|---|----------------------|
| Pending receivable                                  | \$ 161,691,771       |
| Pending payable                                     | <u>(161,856,849)</u> |
| Foreign currency forward contract asset (liability) | <u>\$ (165,078)</u>  |



## Investments as of June 30, 2010

|   | Pension Trust Funds          |                              | Internal Service Funds       |                              |
|---|------------------------------|------------------------------|------------------------------|------------------------------|
|   | Investments<br>at Cost Value | Investments<br>at Fair Value | Investments<br>at Cost Value | Investments<br>at Fair Value |
| Common stocks   |                              |                              |                              |                              |
| Out on loan   | \$ 165,309,886               | \$ 175,651,611               |                              |                              |
| Not on loan   | 732,822,635                  | 664,049,207                  |                              |                              |
| Total   | 898,132,521                  | 839,700,818                  |                              |                              |
| International equities  |                              |                              |                              |                              |
| Out on loan   | 11,088,228                   | 11,842,321                   |                              |                              |
| Not on loan   | 520,367,488                  | 806,187,295                  |                              |                              |
| Total   | 531,455,716                  | 818,029,616                  |                              |                              |
| International corporate bonds                                       |                              |                              |                              |                              |
| Out on loan   | 300,000                      | 309,375                      |                              |                              |
| Not on loan   | 36,709,835                   | 12,464,289                   |                              |                              |
| Total   | 37,009,835                   | 12,773,664                   |                              |                              |
| Corporate bonds   |                              |                              |                              |                              |
| Out on loan   | 7,154,295                    | 7,257,465                    |                              |                              |
| Not on loan   | 194,876,578                  | 183,839,701                  |                              |                              |
| Total   | 202,030,873                  | 191,097,166                  |                              |                              |
| Preferred stocks  | 8,874,930                    | 7,962,150                    |                              |                              |
| Government bonds and gov't<br>mortgage-backed securities            | 37,878,482                   | 37,757,077                   |                              |                              |
| Treasury bonds, notes and bills                                     | 761,998,628                  | 838,787,993                  |                              |                              |
| Convertible bonds   | 2,805,216                    | 3,232,719                    |                              |                              |
| Repurchase agreements   | 533,465                      | 533,465                      | \$3,103,073                  | \$3,103,073                  |
| Short-term investment funds   | 731,479,682                  | 731,479,682                  |                              |                              |
| Collateralized mortgage obligations                                 | 104,982,613                  | 106,322,010                  |                              |                              |
| Foreign currencies  | 4,107,510                    | 4,050,737                    |                              |                              |
| Limited partnerships  | 2,665,806,798                | 3,319,969,737                |                              |                              |
| Bank loans  | 88,936,025                   | 87,268,972                   |                              |                              |
| Total investments   |                              |                              |                              |                              |
| Out on loan   | 183,852,409                  | 195,060,772                  |                              |                              |
| Not on loan   | 5,892,179,885                | 6,803,905,034                | 3,103,073                    | 3,103,073                    |
| Total   | \$6,076,032,294              | \$6,998,965,806              | \$3,103,073                  | \$3,103,073                  |
| Reconciliation to investments<br>on <i>Statements of Net Assets</i> |                              |                              |                              |                              |
| Total from above  |                              | \$6,998,965,806              |                              |                              |
| Less short-term investments   |                              |                              |                              |                              |
| Repurchase agreements   |                              | (533,465)                    |                              |                              |
| Short-term investment funds   |                              | (606,500,028)                |                              |                              |
| Less invested securities lending collateral                         |                              |                              |                              |                              |
| Short-term investment funds   |                              | (124,979,654)                |                              |                              |
| Corporate bonds   |                              | (67,660,518)                 |                              |                              |
| Investments on <i>Statements of Plan Net Assets</i>                 |                              | \$6,199,292,141              |                              |                              |

Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS office.

### Limited Partnerships

Many of MOSERS' alternative investments are organized in the form of limited partnerships. In these partnerships, the manager is the general partner and the limited partners are the investors. As of June 30, 2010, MOSERS had contracts with 70 limited partnerships across various types of alternative investments. These partnerships collectively represent 49% of the total fund. A schedule of limited partnerships is presented below.

### Limited Partnerships

| Partnership Name   | Style                          | Investments at Fair Value<br>as of June 30, 2010 |
|--|--------------------------------|--|
| Actis Emerging Markets III                                       | Emerging markets               | \$ 17,228,839                                    |
| African Development Partners I, LLC                              | Emerging markets               | 4,868,973  |
| Alinda Infrastructure Fund I, LP                                 | Corporate buyout               | 27,196,683                                       |
| AQR Absolute Return Institutional Fund, LP                       | Multi-strategy                 | 130,492,369                                      |
| AQR DELTA Sapphire Fund, LP                                      | Multi-strategy                 | 109,375,918                                      |
| Axiom Asia Private Capital Fund II, LP                           | Emerging markets               | 4,551,152  |
| Bayview Opportunity Domestic, LP - high yield                    | Distressed real estate debt    | 86,316,494                                       |
| Bayview Opportunity Domestic, LP - real estate                   | Distressed real estate debt    | 28,772,165                                       |
| Blackstone Distressed Securities Fund, LP                        | Long/short - credit            | 2,945,894  |
| Blackstone Hedged Equity Fund, LP                                | Long/short - fund-of-funds     | 213,201,711                                      |
| Blackstone Real Estate Partners IV                               | Active real estate             | 37,907,527                                       |
| Blackstone Real Estate Partners V                                | Active real estate             | 59,425,165                                       |
| Blackstone Real Estate Partners VI                               | Active real estate             | 30,436,257                                       |
| Blackstone Topaz Fund, LP  | Multi-strategy - fund-of-funds | 219,509,748                                      |
| Blakeney Onyx, LP  | Emerging markets               | 127,094,802                                      |
| Brevan Howard, LP  | Global macro                   | 51,240,296                                       |
| Bridgepoint Europe III A, LP                                     | Corporate buyout               | 21,210,515                                       |
| Bridgepoint Europe IV B, LP                                      | Corporate buyout               | 6,438,717  |
| Bridgewater Associates - Diamond Ridge Fund, LLC                 | Global macro                   | 103,008,469                                      |
| Campbell Timber Fund II-A, LP                                    | Timberland                     | 46,853,930                                       |
| CarVal Investors CVI Global Value Fund A, LP - private debt      | Distressed real estate debt    | 47,450,000                                       |
| CarVal Investors CVI Global Value Fund A, LP - real estate       | Distressed real estate debt    | 47,450,000                                       |
| Catterton Partners V, LP   | Corporate buyout               | 20,277,973                                       |
| Catterton Partners VI, LP  | Corporate buyout               | 20,690,163                                       |
| Claren Road Credit Partners, LP                                  | Long/short - credit            | 49,387,892                                       |
| Davidson Kempner Institutional Partners, LP                      | Event driven                   | 77,490,844                                       |
| DDJ Capital Management - B IV Capital Partners, LP               | Distressed debt                | 15,569,404                                       |
| Diamondback Partners, LP   | Long/short - equity            | 78,329,206                                       |
| DRI Capital - LSRC   | Intellectual property          | 40,334,852                                       |
| DRI Capital - LSRC II  | Intellectual property          | 981,362  |
| Elliott International Ltd.                                       | Multi-strategy                 | 51,728,939                                       |
| Eminence Fund, Ltd.  | Long/short - equity            | 46,350,743                                       |
| Eton Park Fund, LP   | Multi-strategy                 | 51,965,081                                       |
| Farallon Capital Institutional Partners, LP                      | Multi-strategy                 | 47,597,247                                       |
| Fortress Mortgage Opportunities Fund Series 2                    | Distressed real estate debt    | 27,177,733                                       |
| Garnet Sky Investors Company Ltd.                                | Timberland                     | 73,664,855                                       |
| Global Forest Partners GTI7 Institutional Investors Company Ltd. | Timberland                     | 76,355,680                                       |
| HBK Offshore Fund, Ltd.  | Multi-strategy                 | 32,713,780                                       |
| JLL Partners Fund V, LP  | Corporate buyout               | 24,908,769                                       |
| JLL Partners Fund VI, LP   | Corporate buyout               | 15,243,730                                       |
| King Street Capital, LP  | Credit driven                  | 75,839,810                                       |
| King Street Capital, Ltd.  | Credit driven                  | 3,929,513  |
| Merit Energy Partners F-II, LP                                   | Energy - oil & gas             | 7,289,830  |
| MHR Institutional Partners IIA, LP                               | Distressed debt                | 39,258,336                                       |
| MHR Institutional Partners III, LP                               | Distressed debt                | 34,768,627                                       |
| Millennium Technology Value Partners II, LP                      | Direct secondaries             | 1,000,000  |
| Moon Capital Global Equity Offshore Fund, Ltd.                   | Long/short - equity            | 799,740  |

*Continued on page 44*

Limited Partnerships continued from page 43

| Partnership Name  | Style                              | Investments at Fair Value<br>as of June 30, 2010 |
|---|------------------------------------|--|
| New Mountain Partners III, LP                           | Corporate buyout                   | 14,252,241                                       |
| Oaktree European Credit Opportunities Fund, LP          | European loans                     | 67,234,710                                       |
| OCM Opportunities Fund IVB, LP                          | Distressed debt                    | (28,587)   |
| OCM Opportunities Fund VIIb, LP                         | Distressed debt                    | 124,361,097                                      |
| OCM Real Estate Opportunities Fund III, LP              | Active real estate                 | 34,344,646                                       |
| OCM/GFI Power Opportunities Fund II, LP                 | Corporate buyout                   | 11,345,602                                       |
| PAAMCO - Newport Pioneer, LLC                           | Multi-strategy - fund-of-funds     | 221,456,458                                      |
| Parish Capital Buyout Fund I, LP                        | Corporate buyout - fund-of-funds   | 15,902,162                                       |
| Parish Capital Buyout Fund II, LP                       | Corporate buyout - fund-of-funds   | 13,751,478                                       |
| Parish Opportunities Fund II, LP                        | Private equity co-investment       | 15,238,502                                       |
| Perry Partners, LP                                      | Multi-strategy                     | 452,473  |
| Resource Management Service - Wildwood Timberlands, LLC | Timberland                         | 134,659,140                                      |
| Silver Creek Special Opportunities Fund I, LP           | Special situations - fund-of-funds | 22,895,203                                       |
| Silver Creek Special Opportunities Fund II, LP          | Special situations - fund-of-funds | 23,553,671                                       |
| Silver Lake Partners II, LP                             | Corporate buyout                   | 24,572,792                                       |
| Silver Point Capital Fund, LP                           | Credit driven                      | 52,518,693                                       |
| TCW Energy Fund XIV, LP                                 | Energy - mezzanine                 | 31,459,345                                       |
| TCW Energy Partners, LLC                                | Energy - diversified               | 37,152,477                                       |
| The Veritas Capital Fund III, LP                        | Corporate buyout                   | 32,860,838                                       |
| TPG - Axon Partners (Offshore) Ltd.                     | Long/short - equity                | 43,650,337                                       |
| Viking Global Equities III, Ltd.                        | Long/short - equity                | 60,209,719                                       |
| Wellington Management - Spindrift Investors             | Long/short - equity                | 1,477,678  |
| Other   | Miscellaneous                      | 19,331   |
|   |                                    | <u>\$3,319,969,739</u>                           |

### Capital Assets

Office building, furniture, fixtures, and equipment costing \$250 or more when acquired are capitalized at cost.

Improvements, which increase the useful life of the property, are also capitalized. Maintenance and repairs are charged to expense as incurred. Depreciation is computed using the straight-line method over the estimated useful life of the related assets according to the following schedule:

- 5 years for furniture, fixtures, and equipment
- 40 years for building

The following is a schedule of the capital asset account balances as of June 30, 2009, and June 30, 2010, and changes to those account balances during the year ended June 30, 2010.

| Capital Asset Account            |                  |                                       |                                       |                         |
|----------------------------------|------------------|---------------------------------------|---------------------------------------|-------------------------|
| Capital Assets                   | Land             | Building and<br>Building Improvements | Furniture, Fixtures,<br>and Equipment | Total<br>Capital Assets |
| Balances June 30, 2009           | \$267,286        | \$3,549,468                           | \$1,764,371                           | \$5,581,125             |
| Additions                        |                  | 3,415                                 | 87,463                                | 90,878                  |
| Deletions                        |                  |                                       | (26,610)                              | (26,610)                |
| Balances June 30, 2010           | <u>267,286</u>   | <u>3,552,883</u>                      | <u>1,825,224</u>                      | <u>5,645,393</u>        |
| Accumulated depreciation:        |                  |                                       |                                       |                         |
| Balances June 30, 2009           |                  | 905,939                               | 1,362,129                             | 2,268,068               |
| Depreciation expense             |                  | 78,371                                | 134,169                               | 212,540                 |
| Deletions                        |                  |                                       | (25,562)                              | (25,562)                |
| Balances June 30, 2010           |                  | <u>984,310</u>                        | <u>1,470,736</u>                      | <u>2,455,046</u>        |
| Net capital assets June 30, 2010 | <u>\$267,286</u> | <u>\$2,568,573</u>                    | <u>\$ 354,488</u>                     | <u>\$3,190,347</u>      |

### (3) Contributions and Reserves

The MSEP and the Judicial Plan are pension plans covering substantially all state of Missouri employees, administrative law judges and legal advisors in the Division of Workers' Compensation, and judges. The state of Missouri is obligated by state law to make all required contributions to the plans. The required contributions are expressed as a level percentage of covered payroll and are actuarially determined using an individual entry-age actuarial cost method. The unfunded accrued liabilities are amortized over an open 30-year period. Costs of administering the plans are financed from the contributions to the pension trust funds and investment earnings.

### (4) Other Postemployment Benefits (OPEB)

In addition to the retirement benefits provided through MOSERS, the state of Missouri also funds, either partially or in its entirety, OPEB for eligible retirees as follows:

#### *Retiree Life Insurance*

Members who retire on or after October 1, 1985, are eligible for \$5,000 of state-sponsored basic life insurance coverage if they retire directly from active employment. As of June 30, 2010, 18,466 retirees were eligible and participating in the program. This insured defined benefit coverage is financed on a percent of payroll (.115%) and is purchased as a group policy through competitive bids and is currently administered through The Standard Insurance Company. The cost for

year ended June 30, 2010, was \$1,893,173. Premiums are contributed entirely by the state as provided for by Section 104.515, RSMo.

Retirees of the Department of Labor and Industrial Relations (DOLIR), who retired prior to January 1, 1996, are eligible for state-sponsored insured defined benefit insurance coverage in the same amount of coverage they were receiving through the DOLIR. As of June 30, 2010, 358 retirees were eligible and participating in the program. The coverage for this closed group is purchased as a group policy through competitive bids at a current cost of \$2.07 per thousand dollars of coverage, per month, per eligible participant (\$42,767 for the year ended June 30, 2010). Premiums are paid entirely by the DOLIR as provided for by Section 228.225, RSMo. Retirees of the DOLIR who retired on or after January 1, 1996, are eligible for \$5,000 of state-sponsored life insurance coverage if they retire directly from active employment. They are included in the group described in the preceding paragraph.

#### *Long-Term Disability Insurance*

MOSERS also provides long-term disability coverage for eligible members. Membership generally includes those active members of MOSERS' retirement plans who do not have other disability coverage and are not yet eligible to receive normal (unreduced) retirement benefits. As of June 30, 2010, 37,281 members were eligible and covered under the program. This insured defined benefit coverage is financed on a percentage of covered payroll (.55%) and is

purchased as group policy through competitive bids and is currently administered through The Standard Insurance Company. The cost for the year ended June 30, 2010, was \$8,255,720. Premiums are contributed by the state as provided for by Section 104.515, RSMo.

#### *Postemployment Retiree Health Care*

MOSERS participates in a cost-sharing multiple-employer defined benefit post-employment health care plan administered by the Missouri Consolidated Health Care Plan (MCHCP). The plan provides medical benefits to retirees of participating governmental entities. Retirees who had medical insurance coverage for six months immediately prior to termination or state-sponsored medical coverage since the effective date of the last enrollment period (or since first eligible), before they are eligible to retire, may continue coverage into retirement. MCHCP issues a publicly available financial report that includes financial statements and required supplementary information for the postemployment health care plan. The report may be obtained by writing to the MCHCP, 832 Weathered Rock Court, P.O. Box 104355, Jefferson City, MO 65110-4355 or by calling (800) 487-0771.

Plan funding requests are actuarially determined, approved by the MCHCP Board of Trustees, and subject to appropriation by the Missouri General Assembly. MOSERS contributed \$191,341 in FY08, \$236,191 in FY09, and \$277,645 in FY10 in accordance

with the state's funding policy toward the annual required contributions for postemployment retiree health care, which equaled MOSERS required contribution each year.

### **(5) Plan Termination**

MOSERS and its related plans are administered in accordance with Missouri statutes. Plans can only be terminated by an amendment to these statutes by the Missouri legislature.

On April 26, 2005, Senate Bill 202 was enacted, which terminated the Administrative Law Judges and Legal Advisors' Plan (ALJLAP) for new hires only. Under this legislation, individuals who assume a position after April 26, 2005, who would have otherwise been covered by the ALJLAP, will instead participate in the MSEP or the MSEP 2000, depending on when they initially became state employees. For fiscal years 2005 and after, all liabilities and assets of the ALJLAP were transferred and combined with the MSEP. Membership totals for ALJLAP members are combined with the MSEP in all relevant sections of this report.

### **(6) Commitments**

As of June 30, 2010, MOSERS has \$396,355,331 and €50,005,653 unfunded commitments in the alternative investments asset class.

### **(7) Contingencies**

MOSERS is a defendant in three lawsuits and a plaintiff in one lawsuit that, in management's opinion, will not have a material effect on the financial statements.

The Internal Revenue Service (IRS) audited the tax qualified status of MOSERS. In a discussion draft dated August 9, 2007, the IRS raised two qualification issues but no further action has been taken by the IRS on those matters. MOSERS does not anticipate material liability for any taxes or penalties.

*Required Supplementary Information***SCHEDULES OF FUNDING PROGRESS****PENSION TRUST FUNDS - LAST SIX YEARS****MSEP**

| Actuarial<br>Valuation Date | Actuarial<br>Value of Assets<br>(a) | Actuarial Accrued<br>Liability (AAL)<br>Entry Age<br>(b) | Unfunded AAL<br>(UAAL)<br>(b-a) | Percent<br>Funded<br>(a/b) | Annual<br>Covered Payroll<br>(c) | UAAL<br>Percentage<br>of Covered<br>Payroll<br>((b-a)/c) |
|-----------------------------|-------------------------------------|--|---------------------------------|----------------------------|----------------------------------|--|
| 6/30/2005                   | \$6,435,344,102                     | \$7,578,028,017  | \$1,142,683,915                 | 84.9%                      | \$1,806,600,560                  | 63.3%  |
| 6/30/2006                   | 6,836,567,188                       | 8,013,205,414  | 1,176,638,226                   | 85.3                       | 1,777,277,138                    | 66.2   |
| 6/30/2007                   | 7,377,289,283                       | 8,500,428,641  | 1,123,139,358                   | 86.8                       | 1,846,643,330                    | 60.8   |
| 6/30/2008                   | 7,838,495,768                       | 9,128,347,470  | 1,289,851,702                   | 85.9                       | 1,916,527,398                    | 67.3   |
| 6/30/2009                   | 7,876,079,342                       | 9,494,806,715  | 1,618,727,373                   | 83.0                       | 2,002,402,087                    | 80.8   |
| 6/30/2010                   | 7,923,377,393                       | 9,853,155,445  | 1,929,778,052                   | 80.4                       | 1,945,095,321                    | 99.2   |

**Judicial Plan**

| Actuarial<br>Valuation Date | Actuarial<br>Value of Assets<br>(a) | Actuarial Accrued<br>Liability (AAL)<br>Entry Age<br>(b) | Unfunded AAL<br>(UAAL)<br>(b-a) | Percent<br>Funded<br>(a/b) | Annual<br>Covered Payroll<br>(c) | UAAL<br>Percentage<br>of Covered<br>Payroll<br>((b-a)/c) |
|-----------------------------|-------------------------------------|--|---------------------------------|----------------------------|----------------------------------|--|
| 6/30/2005                   | \$44,223,509                        | \$292,303,886  | \$248,080,377                   | 15.1%                      | \$40,016,098                     | 620.0%   |
| 6/30/2006                   | 51,652,867                          | 309,002,752  | 257,349,885                     | 16.7                       | 40,270,535                       | 639.1  |
| 6/30/2007                   | 61,903,516                          | 326,666,373  | 264,762,857                     | 19.0                       | 40,846,581                       | 648.2  |
| 6/30/2008                   | 73,194,379                          | 354,796,453  | 281,602,074                     | 20.6                       | 44,542,530                       | 632.2  |
| 6/30/2009                   | 81,337,881                          | 369,106,841  | 287,768,960                     | 22.0                       | 45,505,512                       | 632.4  |
| 6/30/2010                   | 88,976,738                          | 382,012,773  | 293,036,035                     | 23.3                       | 46,112,730                       | 635.5  |

See *Notes to the Schedules of Required Supplementary Information*.

See accompanying *Independent Auditor's Report*.



*Required Supplementary Information***SCHEDULES OF EMPLOYER CONTRIBUTIONS****PENSION TRUST FUNDS - LAST SIX YEARS****MSEP**

| Year Ended June 30 | Annual Required Contribution |               | Percentage Contributed |
|--------------------|------------------------------|---------------|------------------------|
|                    | Percent                      | Dollar Amount |                        |
| 2005               | 10.64%                       | \$194,524,059 | 100%                   |
| 2006               | 12.59                        | 226,338,183   | 100                    |
| 2007               | 12.78                        | 239,488,751   | 100                    |
| 2008               | 12.84                        | 249,770,156   | 100                    |
| 2009               | 12.53                        | 252,105,008   | 100                    |
| 2010               | 12.75                        | 251,226,187   | 100                    |

**ALJLAP\***

| Year Ended June 30 | Annual Required Contribution |               | Percentage Contributed |
|--------------------|------------------------------|---------------|------------------------|
|                    | Percent                      | Dollar Amount |                        |
| 2005               | 22.13%                       | \$1,124,924   | 100%                   |
| 2006*              | 21.79                        | 895,012       | 100                    |

\* The ALJLAP was transitioned to the MSEP Plan in FY05. FY06 was the last year for separate ALJLAP contributions. Future contributions are included in the MSEP rate.

**Judicial Plan**

| Year Ended June 30 | Annual Required Contribution |               | Percentage Contributed |
|--------------------|------------------------------|---------------|------------------------|
|                    | Percent                      | Dollar Amount |                        |
| 2005               | 54.51%                       | \$21,852,985  | 100%                   |
| 2006               | 55.76                        | 22,401,569    | 100                    |
| 2007               | 58.48                        | 23,745,467    | 100                    |
| 2008               | 58.65                        | 26,215,309    | 100                    |
| 2009               | 60.07                        | 27,725,882    | 100                    |
| 2010               | 58.48                        | 27,029,198    | 100                    |

See Notes to the Schedules of Required Supplementary Information.

See accompanying Independent Auditor's Report.

*Required Supplementary Information*

# NOTES TO THE SCHEDULES OF REQUIRED SUPPLEMENTARY INFORMATION

## PENSION TRUST FUNDS - LAST SIX YEARS

### Actuarial Methods and Assumptions for Valuations Performed June 30, 2010

The entry-age actuarial cost method of valuation is used in determining liabilities and normal cost. Differences in the past between assumed experience and actual experience (actuarial gains and losses) become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments (principal and interest), which are expressed as a percent of payroll. An open 30-year amortization period was used for the June 30, 2010 valuations. The actuarial value of assets is based on a method that fully recognizes expected investment returns and averages unanticipated market return over a 5-year period. However, at

their meeting in September 2005, the MOSERS board considered the extreme volatility in the markets. As a result, the board elected to set the actuarial value of assets to market value as of June 30, 2005. Consequently, all remaining unrecognized investment gains or losses that would have otherwise been recognized over a period of years were fully recognized as of June 30, 2005. In the September 2009 meeting, the MOSERS board, in light of the severely negative market conditions, adopted a temporary change to the market corridor limit of the valuation assets from +/- 20% to +/- 30% for the June 30, 2009 valuation. The limit was decreased to +/- 25% for the June 30, 2010 valuation and is scheduled to return to +/- 20% thereafter. The investment

return rate assumption used is 8.5% per year, compounded annually (net of investment expenses). The price inflation assumption used is 3.2% per year. Projected salary increase assumptions are based on 0% the first year, to reflect the state's pay freeze, and 4% per year thereafter for wage inflation plus an additional .3% to 3.5% per year for the MSEP and 0% to 1.6% per year for the Judicial Plan (depending on age, attributable to seniority, and/or merit increases). The assumption used for annual post-retirement benefit increases is 4% (on a compound basis) for approximately the first 12 years, 3.1% for the 13th year, and 2.56% per year thereafter or 2.56% per year, depending upon the date of hire and benefit election.

**2003** The actuarial valuations as of June 30, 2003, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2005.

|   | Amount        | Percent of Payroll |
|---|---------------|--------------------|
| <b>MSEP</b>   |               |                    |
| Reduction in projected across-the-board pay increases to 1.67% for the fiscal year ending June 30, 2005 | \$(6,089,634) | (.35)%             |
| Plan experience   | 28,543,284    | 1.64               |
| <b>ALJLAP</b>   |               |                    |
| Recognition of state pay freeze for annual salaries above \$40,000                                      | (18,632)      | (.40)              |
| Plan experience   | 112,255       | 2.41               |
| <b>Judicial Plan</b>  |               |                    |
| Recognition of state pay freeze for annual salaries above \$40,000                                      | (224,297)     | (.56)              |
| Plan experience   | 1,357,795     | 3.39               |

**2004** The actuarial valuations as of June 30, 2004, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2006.

|                                   | Amount       | Percent of Payroll |
|-----------------------------------|--------------|--------------------|
| <b>MSEP</b>                       |              |                    |
| Change in assumptions             | \$ 8,166,036 | .47%               |
| Experience and nonrecurring items | 25,714,326   | 1.48               |
| <b>ALJLAP</b>                     |              |                    |
| Change in assumptions             | 466          | .01                |
| Experience and nonrecurring items | (16,294)     | (.35)              |
| <b>Judicial Plan</b>              |              |                    |
| Change in assumptions             | (15,951)     | (.04)              |
| Experience and nonrecurring items | 514,433      | 1.29               |

**2005** The actuarial valuations as of June 30, 2005, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2007.

|  | Amount         | Percent of Payroll |
|--|----------------|--------------------|
| <b>MSEP</b>  |                |                    |
| Mark to market asset valuation method adjustment   | \$(10,116,963) | (.56)%             |
| Recognition of state pay freeze on across-the-board increases for FY06                                   | (3,793,861)    | (.21)              |
| Experience and nonrecurring items including the addition of the assets and liabilities from the ALJ plan | 17,162,705     | .95                |
| <b>Judicial Plan</b>   |                |                    |
| Mark to market asset valuation method adjustment   | 28,011         | .07                |
| Recognition of state pay freeze on across-the-board increases for FY06                                   | (136,055)      | (.34)              |
| Change in amortization factor to reflect the state pay freeze for fiscal year ending June 30, 2006       | 556,224        | 1.39               |
| Experience and nonrecurring items  | 640,258        | 1.60               |

**2006** The actuarial valuations as of June 30, 2006, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2008.

|   | Amount        | Percent of Payroll |
|---|---------------|--------------------|
| <b>MSEP</b>                                   |               |                    |
| Change to an open 30-year amortization period | \$(1,244,094) | (0.07)%            |
| Experience and nonrecurring items             | 2,310,460     | .13                |
| <b>Judicial Plan</b>                          |               |                    |
| Change to an open 30-year amortization period | (265,786)     | (0.66)             |
| Experience and nonrecurring items             | 334,245       | .83                |

**2007** The actuarial valuations as of June 30, 2007, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2009.

|  | Amount       | Percent of Payroll |
|--|--------------|--------------------|
| <b>MSEP</b>                              |              |                    |
| Change in benefit assumptions or methods | \$ (369,329) | (0.02)%            |
| Experience and nonrecurring items        | (5,355,266)  | (0.29)             |
| <b>Judicial Plan</b>                     |              |                    |
| Change in benefit assumptions or methods | (273,672)    | (0.67)             |
| Experience and nonrecurring items        | 853,694      | 2.09               |

**2008** The actuarial valuations as of June 30, 2008, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2010.

|  | Amount      | Percent of Payroll |
|--|-------------|--------------------|
| <b>MSEP</b>                              |             |                    |
| Change in benefit assumptions or methods | \$4,791,318 | 0.25%              |
| Experience and nonrecurring items        | (574,958)   | (0.03)             |
| <b>Judicial Plan</b>                     |             |                    |
| Change in benefit assumptions or methods | (547,873)   | (1.23)             |
| Experience and nonrecurring items        | (160,353)   | (0.36)             |

**2009** The actuarial valuations as of June 30, 2009, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2011.

|  | Amount         | Percent of Payroll |
|--|----------------|--------------------|
| <b>MSEP</b>  |                |                    |
| State of Missouri general pay freeze                     | \$ (4,405,285) | (0.22)%            |
| Experience and nonrecurring items                        | 55,466,538     | 2.77               |
| Change in valuation asset corridor from +/-20% to +/-30% | (29,835,791)   | (1.49)             |
| <b>Judicial Plan</b>                                     |                |                    |
| State of Missouri general pay freeze                     | 350,392        | 0.77               |
| Experience and nonrecurring items                        | 496,010        | 1.09               |
| Change in valuation asset corridor from +/-20% to +/-30% | (141,067)      | (0.31)             |

**2010** The actuarial valuations as of June 30, 2010, reflected the following changes to the computed contribution rates for fiscal year ending June 30, 2012.

|   | Amount         | Percent of Payroll |
|---|----------------|--------------------|
| <b>MSEP</b>   |                |                    |
| State of Missouri general pay freeze  | \$ (2,528,624) | (0.13)%            |
| Addition of new tier of benefits effective January 1, 2011                              | (17,311,348)   | (0.89)             |
| Experience and nonrecurring items   | 25,480,749     | 1.31               |
| Change in methodology of contributions timing between valuation and year of application | (2,528,624)    | (0.13)             |
| <b>Judicial Plan</b>  |                |                    |
| State of Missouri general pay freeze  | (308,955)      | (0.67)             |
| Addition of new tier of benefits effective January 1, 2011                              | (493,406)      | (1.07)             |
| Experience and nonrecurring items   | 438,071        | 0.95               |
| Change in methodology of contributions timing between valuation and year of application | (894,587)      | (1.94)             |

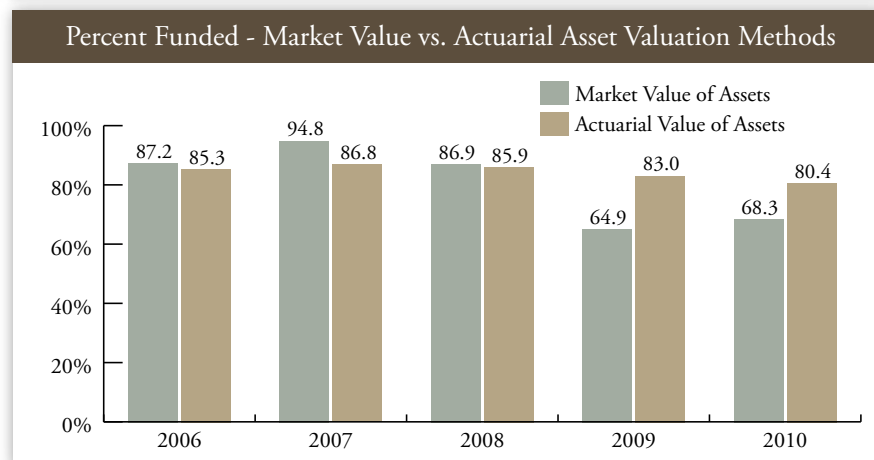
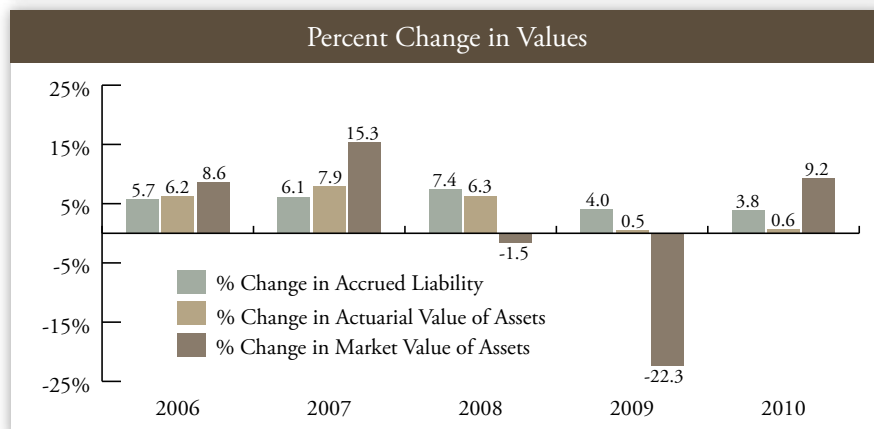
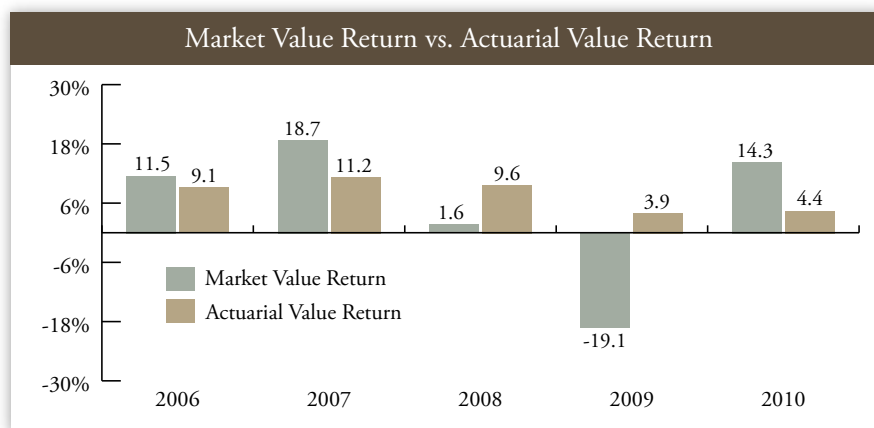
## Actuarial Asset Value Smoothing

The financing objective of the vast majority of public retirement plans is to establish contribution rates and collect contributions which remain relatively level as a percent of active member payroll over decades of time. This concept is sometimes referred to as attempting to achieve intergenerational equity, meaning that future generations will not be expected to pay more or less (in inflation adjusted terms) than the present generation contributes to support the plan.

Some critics of smoothing the actuarial value of assets suggest that pension plans are not providing “transparency” in connection with operations. Actual practice suggests otherwise. The *Statements of Plan Net Assets* and *Changes in Plan Net Assets* in this section are prepared on the basis of market values. Beyond that, all information related to asset values and results of investment activity in the *Investment Section* of this report is prepared on the basis of market values. This is required by the accounting and reporting standards established by the Governmental Accounting Standards Board and by the Government Finance Officers Association’s *Guidelines for the Preparation of a Comprehensive Annual Financial Report*. Both organizations have been long standing proponents of transparency in governmental accounting and reporting – public retirement plans commonly subscribe to the dictates of both.

Many public retirement plans have begun to emphasize use of asset classes that, by their nature, tend to be somewhat volatile in market value. This is being done with the objective of increasing long-term investment returns, thus providing increased benefit security for plan participants and lower contribution rates for taxpayers than would otherwise be the case. With market value accounting for contribution rate determination purposes, we could achieve more level contribution rates by employing lower volatility asset classes but the level contribution rate would be much higher than is the case with the higher return expectations we have as the result of taking on asset volatility risk.

For those of us attempting to operate with a long-term time horizon, with contribution rate stability as a key objective, asset smoothing for actuarial purposes is simply a tool. Asset smoothing for actuarial purposes is a practical solution to responsibly achieving intergenerational equity, giving recognition to the fact that market cycles do not coincide with financial reporting periods. The use of the “market related” value established through smoothing simply makes more sense for determining contribution rates than using market value. The bar charts above further illustrate the impact of smoothing volatility in actuarial computations.



*Additional Financial Information***SCHEDULES OF INVESTMENT EXPENSES**

PENSION TRUST FUNDS - YEAR ENDED JUNE 30, 2010

|   | MSEP        | Judicial Plan | Total       |
|---|-------------|---------------|-------------|
| <b>Investing activity</b>   |             |               |             |
| <u>Investment management and administration fees</u>                  |             |               |             |
| Actis Emerging Markets 3 - private equity                             | \$ 983,211  | \$ 11,331     | \$ 994,542  |
| African Development Partners I, LLC - private equity                  | 713,614     | 8,224         | 721,838     |
| Alinda Infrastructure Fund I, LP - private equity                     | 246,825     | 2,844         | 249,669     |
| AQR Absolute Return Institutional Fund, LP - alpha pool               | 1,158,336   | 13,349        | 1,171,685   |
| AQR DELTA Sapphire Fund, LP - alpha pool                              | 808,435     | 9,317         | 817,752     |
| Axiom Asia Private Capital Fund II, LP - private equity               | 408,804     | 4,711         | 413,515     |
| Baillie Gifford EAFE Plus - international equity                      | 85,607      | 987           | 86,594      |
| Barclays Global Investors Global Market Neutral Fund - alpha pool     | (202,862)   | (2,338)       | (205,200)   |
| Bayview Opportunity Domestic, LP - high yield                         | 3,328,853   | 38,363        | 3,367,216   |
| Bayview Opportunity Domestic, LP - credit opportunities               | 2,928,380   | 33,748        | 2,962,128   |
| Bayview Opportunity Domestic, LP - real estate                        | 2,085,744   | 24,037        | 2,109,781   |
| BlackRock Financial Management Bank Loans - high yield                | 674,473     | 7,773         | 682,246     |
| BlackRock Financial Management High Yield - high yield                | 275,036     | 3,170         | 278,206     |
| BlackRock Financial Management Mortgage Opportunity - high yield      | 262,726     | 3,028         | 265,754     |
| Blackstone Distressed Securities Fund, LP - alpha pool                | 33,493      | 386           | 33,879      |
| Blackstone Real Estate Partners V - real estate                       | 1,069,052   | 12,320        | 1,081,372   |
| Blackstone Real Estate Partners VI - real estate                      | 1,100,644   | 12,684        | 1,113,328   |
| Blackstone Hedged Equity Fund, LP - domestic equity                   | 2,337,275   | 26,935        | 2,364,210   |
| Blackstone Topaz Fund, LP - alpha pool                                | 2,088,780   | 24,072        | 2,112,852   |
| Blackstone Real Estate Partners IV - real estate                      | 821,165     | 9,463         | 830,628     |
| Blakeney Onyx, LP - emerging markets                                  | 2,095,555   | 24,150        | 2,119,705   |
| Brevan Howard, LP - alpha pool  | 737,561     | 8,500         | 746,061     |
| Bridgewater Associates Diamond Ridge Fund, LLC - alpha pool           | 2,767,514   | 31,894        | 2,799,408   |
| Bridgepoint Europe III A, LP - private equity                         | 150,607     | 1,736         | 152,343     |
| Bridgepoint Europe IV B, LP - private equity                          | 665,580     | 7,670         | 673,250     |
| Campbell Timber Fund II-A, LP - timber                                | 486,766     | 5,610         | 492,376     |
| Catterton Partners V, LP - private equity                             | 1,252,313   | 14,432        | 1,266,745   |
| Catterton Partners VI, LP - private equity                            | 474,474     | 5,468         | 479,942     |
| CarVal Investors CVI Global Value Fund A, LP - real estate            | 868,737     | 10,012        | 878,749     |
| CarVal Investors CVI Global Value Fund A, LP - private debt           | 868,737     | 10,012        | 878,749     |
| Davidson Kempner Institutional Partners, LP - alpha pool              | 3,183,251   | 36,685        | 3,219,936   |
| DDJ Capital Management B IV Capital Partners, LP - private debt       | (1,080,119) | (12,448)      | (1,092,567) |
| Diamondback Partners, LP - alpha pool                                 | 247,152     | 2,848         | 250,000     |
| DRI Capital LSRC - private equity                                     | 337,912     | 3,894         | 341,806     |
| DRI Capital LSRC II - private equity                                  | 43,061      | 496           | 43,557      |
| Elliott International, Ltd. - alpha pool                              | 190,114     | 2,191         | 192,305     |
| Eminence Fund, Ltd. - domestic equity                                 | 1,485,576   | 17,120        | 1,502,696   |
| Eton Park Fund, LP - alpha pool                                       | 1,491,058   | 17,183        | 1,508,241   |
| Farallon Capital Institutional Partners, LP - alpha pool              | 2,170,782   | 25,017        | 2,195,799   |
| Garnet Sky Investors Co., Ltd. - timber                               | 537,645     | 6,196         | 543,841     |
| Global Forest Partners GTI7 Institutional Investors Co. Ltd. - timber | 559,736     | 6,451         | 566,187     |
| Grantham, May and Van Otterloo & Co., LLC - emerging markets          | 1,071,445   | 12,348        | 1,083,793   |
| Harvest Fund Advisors - real estate                                   | 333,027     | 3,838         | 336,865     |
| HBK Offshore Fund, Ltd. - alpha pool                                  | 966,208     | 11,135        | 977,343     |
| Highside Offshore, Ltd. - alpha pool                                  | 204,539     | 2,357         | 206,896     |
| JLL Partners V, LP - private equity                                   | 828,615     | 9,549         | 838,164     |
| JLL Partners VI, LP - private equity                                  | 2,413,557   | 27,815        | 2,441,372   |
| King Street Capital, Ltd. - alpha pool                                | 1,982,231   | 22,844        | 2,005,075   |
| Legg Mason Opportunity Trust - domestic equity                        | 642,937     | 7,409         | 650,346     |
| Legg Mason Value Trust - domestic equity                              | 308,482     | 3,555         | 312,037     |

*Continued on page 54*



*Schedule of Investment Expenses continued from page 53*

|   | MSEP         | Judicial Plan | Total        |
|---|--------------|---------------|--------------|
| Leuthold Weeden Capital Management - domestic equity              | 410,792      | 4,734         | 415,526      |
| Mastholm Investment Managers - int'l developed                    | 442,359      | 5,098         | 447,457      |
| Merit Energy Partners F-II, LP - real estate                      | 89,220       | 1,028         | 90,248       |
| MHR Institutional Partners IIA, LP - private debt                 | (630,184)    | (7,262)       | (637,446)    |
| MHR Institutional Partners III, LP - private debt                 | 1,163,403    | 13,407        | 1,176,810    |
| Morant Wright Investment Management - int'l developed equity      | 718,544      | 8,281         | 726,825      |
| MOSERS Inc. - alpha pool  | 62           | 1             | 63           |
| New Mountain Partners III, LP - private equity                    | 702,280      | 8,093         | 710,373      |
| Nippon Value Investors - int'l developed equity                   | 812,278      | 9,361         | 821,639      |
| NISA Investment Advisors, LLC - commodities                       | 732,385      | 8,440         | 740,825      |
| NISA Investment Advisors, LLC - beta program emerging markets     | 16,355       | 188           | 16,543       |
| NISA Investment Advisors, LLC - beta program domestic equity      | 559,366      | 6,446         | 565,812      |
| NISA Investment Advisors, LLC - beta program fixed income         | 492,234      | 5,673         | 497,907      |
| NISA Investment Advisors, LLC - beta program international equity | 202,286      | 2,331         | 204,617      |
| OCM Real Estate Opportunities Fund III, LP - real estate          | 682,767      | 7,868         | 690,635      |
| OCM Opportunities Fund IVB, LP - private debt                     | (97,709)     | (1,126)       | (98,835)     |
| OCM/GFI Power Opportunities Fund II, LP - private equity          | 726,868      | 8,377         | 735,245      |
| OCM Opportunities Fund VIIb, LP - private debt                    | 7,603,980    | 87,630        | 7,691,610    |
| PAAMCO - Newport Pioneer, LLC - alpha pool                        | 962,575      | 11,093        | 973,668      |
| Parish Capital Buyout Fund I, LP - private equity                 | 400,104      | 4,609         | 404,713      |
| Parish Capital Buyout Fund II, LP - private equity                | 383,079      | 4,415         | 387,494      |
| Parish Opportunities Fund II, LP - private equity                 | 185,364      | 2,136         | 187,500      |
| Resource Management Service Wildwood Timberlands, LLC - timber    | 5,199,321    | 59,918        | 5,259,239    |
| Silchester International Investors - int'l developed equity       | 2,187,960    | 25,215        | 2,213,175    |
| Silver Lake Partners II, LP - private equity                      | 1,143,334    | 13,176        | 1,156,510    |
| Silver Point Capital Fund, LP - alpha pool                        | 454,780      | 5,241         | 460,021      |
| TPG - Axon Partners (Offshore), Ltd. - domestic equity            | 768,463      | 8,856         | 777,319      |
| TCW Energy Partners, LLC - real estate                            | 1,375,795    | 15,855        | 1,391,650    |
| TCW Energy Fund XIV, LP - real estate                             | 1,119,292    | 12,899        | 1,132,191    |
| Trust Company of the West - credit opportunities                  | 851,144      | 9,809         | 860,953      |
| The Veritas Capital Fund III, LP - private equity                 | 2,020,136    | 23,281        | 2,043,417    |
| Viking Global Equities III, Ltd. - domestic equity                | 2,030,783    | 23,403        | 2,054,186    |
| Total investment management fees                                  | 83,202,060   | 958,845       | 84,160,905   |
| <b>Other investment fees</b>                                      |              |               |              |
| Investment consultant fees  |              |               |              |
| Summit Strategies, Inc.   | 838,841      | 9,667         | 848,508      |
| Investment custodial fees   |              |               |              |
| Mellon Bank   | 465,652      | 5,366         | 471,018      |
| Partnership fees  | 1,480        | 17            | 1,497        |
| Performance measurement fees                                      |              |               |              |
| Mellon Bank   | 348,939      | 4,021         | 352,960      |
| Internal investment activity expenses                             | 3,599,288    | 41,479        | 3,640,767    |
| Total investing activity expenses                                 | 88,456,260   | 1,019,395     | 89,475,655   |
| <b>Securities lending activity</b>                                |              |               |              |
| Securities lending borrower rebates                               | (526,125)    | (6,063)       | (532,188)    |
| Securities lending management fees                                |              |               |              |
| Mellon Bank   | 123,576      | 1,424         | 125,000      |
| Credit Suisse First Boston  | 231,923      | 2,673         | 234,596      |
| Total securities lending activity expenses                        | (170,626)    | (1,966)       | (172,592)    |
| Total investment expenses   | \$88,285,634 | \$1,017,429   | \$89,303,063 |

*Additional Financial Information***SCHEDULES OF INTERNAL INVESTMENT ACTIVITY EXPENSES**

PENSION TRUST FUNDS – YEAR ENDED JUNE 30, 2010

|                               | MSEP        | Judicial Plan | Total       |
|-------------------------------|-------------|---------------|-------------|
| <b>Personnel services</b>     |             |               |             |
| Salaries                      | \$2,010,389 | \$23,167      | \$2,033,556 |
| Employee fringe benefits      | 591,146     | 6,813         | 597,959     |
| Total personnel services      | 2,601,535   | 29,980        | 2,631,515   |
| <b>Professional services</b>  |             |               |             |
| Attorney services             | 584,898     | 6,741         | 591,639     |
| Consulting services           | 75,399      | 869           | 76,268      |
| Total professional services   | 660,297     | 7,610         | 667,907     |
| <b>Communications</b>         |             |               |             |
| Telephone                     | 6,726       | 78            | 6,804       |
| Total communications          | 6,726       | 78            | 6,804       |
| <b>Travel and meetings</b>    |             |               |             |
| Staff travel and meetings     | 96,823      | 1,116         | 97,939      |
| Total travel and meetings     | 96,823      | 1,116         | 97,939      |
| <b>General</b>                |             |               |             |
| Educational materials         | 4,968       | 57            | 5,025       |
| Office supplies               | 264         | 3             | 267         |
| Subscriptions and dues        | 228,675     | 2,635         | 231,310     |
| Total general                 | 233,907     | 2,695         | 236,602     |
| Total administrative expenses | \$3,599,288 | \$41,479      | \$3,640,767 |

*Additional Financial Information*

# SCHEDULES OF ADMINISTRATIVE EXPENSES PENSION TRUST FUNDS - YEAR ENDED JUNE 30, 2010

|                                   | MSEP        | Judicial Plan | Total       |
|-----------------------------------|-------------|---------------|-------------|
| <b>Personnel services</b>         |             |               |             |
| Salaries                          | \$3,497,611 | \$40,307      | \$3,537,918 |
| Employee fringe benefits          | 1,328,252   | 15,307        | 1,343,559   |
| Total personnel services          | 4,825,863   | 55,614        | 4,881,477   |
| <b>Professional services</b>      |             |               |             |
| Actuarial services                | 265,269     | 3,057         | 268,326     |
| Attorney services                 | 275,890     | 3,179         | 279,069     |
| Auditing services                 | 43,756      | 504           | 44,260      |
| Banking services                  | 24,768      | 285           | 25,053      |
| Consulting services               | 84,265      | 971           | 85,236      |
| Total professional services       | 693,948     | 7,996         | 701,944     |
| <b>Communications</b>             |             |               |             |
| Postage and mailing               | 188,518     | 2,173         | 190,691     |
| Telephone                         | 43,385      | 500           | 43,885      |
| Printing                          | 53,879      | 621           | 54,500      |
| Video production                  | 2,143       | 25            | 2,168       |
| Total communications              | 287,925     | 3,319         | 291,244     |
| <b>Building and grounds</b>       |             |               |             |
| Depreciation                      | 77,478      | 893           | 78,371      |
| Utilities                         | 70,388      | 811           | 71,199      |
| Maintenance                       | 50,365      | 580           | 50,945      |
| Total building and grounds        | 198,231     | 2,284         | 200,515     |
| <b>Equipment</b>                  |             |               |             |
| Depreciation                      | 132,640     | 1,529         | 134,169     |
| Maintenance                       | 215,786     | 2,487         | 218,273     |
| Rental                            | 110,550     | 1,274         | 111,824     |
| Gain on sale of equipment         | 44          | 1             | 45          |
| Total equipment                   | 459,020     | 5,291         | 464,311     |
| <b>Travel and meetings</b>        |             |               |             |
| Board travel and meetings         | 37,991      | 438           | 38,429      |
| Staff travel and meetings         | 156,106     | 1,799         | 157,905     |
| Vehicle maintenance and operation | 6,628       | 76            | 6,704       |
| Total travel and meetings         | 200,725     | 2,313         | 203,038     |
| <b>General</b>                    |             |               |             |
| Educational materials             | 15,934      | 184           | 16,118      |
| Office supplies                   | 68,655      | 791           | 69,446      |
| Subscriptions and dues            | 194,168     | 2,238         | 196,406     |
| Insurance                         | 118,178     | 1,362         | 119,540     |
| Advertising                       | 1,897       | 22            | 1,919       |
| Total general                     | 398,832     | 4,597         | 403,429     |
| Total administrative expenses     | \$7,064,544 | \$81,414      | \$7,145,958 |

*Additional Financial Information***SCHEDULES OF ADMINISTRATIVE EXPENSES**

INTERNAL SERVICE FUNDS - YEAR ENDED JUNE 30, 2010

|                                   | Life & LTD | Deferred Compensation | Total     |
|-----------------------------------|------------|-----------------------|-----------|
| <b>Personnel services</b>         |            |                       |           |
| Salaries                          | \$383,875  | \$111,378             | \$495,253 |
| Employee fringe benefits          | 133,633    | 24,655                | 158,288   |
| Total personnel services          | 517,508    | 136,033               | 653,541   |
| <b>Professional services</b>      |            |                       |           |
| Attorney services                 | 572        | 3,688                 | 4,260     |
| Auditing services                 | 3,050      | 0                     | 3,050     |
| Banking services                  | 558        | 417                   | 975       |
| Total professional services       | 4,180      | 4,105                 | 8,285     |
| <b>Communications</b>             |            |                       |           |
| Postage and mailing               | 1,040      | 16,490                | 17,530    |
| Telephone                         | 3,419      | 0                     | 3,419     |
| Video production expense          | 149        | 0                     | 149       |
| Total communications              | 4,608      | 16,490                | 21,098    |
| <b>Building and grounds</b>       |            |                       |           |
| Building use charge               | 7,837      | 0                     | 7,837     |
| Utilities                         | 4,877      | 0                     | 4,877     |
| Maintenance                       | 3,505      | 0                     | 3,505     |
| Total building and grounds        | 16,219     | 0                     | 16,219    |
| <b>Equipment</b>                  |            |                       |           |
| Equipment use charge              | 13,474     | 0                     | 13,474    |
| Maintenance                       | 14,903     | 0                     | 14,903    |
| Rental                            | 9,751      | 0                     | 9,751     |
| Total equipment                   | 38,128     | 0                     | 38,128    |
| <b>Travel and meetings</b>        |            |                       |           |
| Board travel and meetings         | 2,625      | 0                     | 2,625     |
| Staff travel and meetings         | 17,445     | 3,976                 | 21,421    |
| Vehicle maintenance and operation | 453        | 0                     | 453       |
| Total travel and meetings         | 20,523     | 3,976                 | 24,499    |
| <b>General</b>                    |            |                       |           |
| Educational materials             | 1,273      | 0                     | 1,273     |
| Office supplies                   | 4,624      | 0                     | 4,624     |
| Subscriptions and dues            | 4,485      | 16,500                | 20,985    |
| Insurance                         | 8,236      | 0                     | 8,236     |
| Advertising                       | 132        | 0                     | 132       |
| Total general                     | 18,750     | 16,500                | 35,250    |
| Total administrative expenses     | \$619,916  | \$177,104             | \$797,020 |

*Additional Financial Information***SCHEDULES OF PROFESSIONAL/CONSULTANT FEES**

YEAR ENDED JUNE 30, 2010

|  |                                   | Pension Trust Funds |               |             | Internal Service Funds |                       |         |
|--|-----------------------------------|---------------------|---------------|-------------|------------------------|-----------------------|---------|
| Professional/Consultant                              | Nature of Service                 | MSEP                | Judicial Plan | Total       | Life & LTD             | Deferred Compensation | Total   |
| Operation administrative expenses                    |                                   |                     |               |             |                        |                       |         |
| Avtex Solutions LLC                                  | Phone system consulting           | \$ 1,072            | \$ 12         | \$ 1,084    | \$ 0                   | \$ 0                  | \$ 0    |
| CBIZ Benefits & Insurance Services, Inc.             | Human capital services            | 21,305              | 245           | 21,550      | 0                      | 0                     | 0       |
| Central Bank   | Banking                           | 24,768              | 285           | 25,053      | 558                    | 417                   | 975     |
| Charlesworth & Associates                            | Risk management consulting        | 7,229               | 83            | 7,312       | 0                      | 0                     | 0       |
| Claire West Consulting                               | Governmental pension consulting   | 5,446               | 63            | 5,509       | 0                      | 0                     | 0       |
| Columbia Integrated Technologies                     | Information technology consulting | 182                 | 2             | 184         | 0                      | 0                     | 0       |
| Gabriel, Roeder, Smith & Co.                         | Actuarial                         | 265,270             | 3,057         | 268,327     | 0                      | 0                     | 0       |
| Gamble & Schlemeier, Ltd.                            | Governmental pension consulting   | 26,774              | 309           | 27,083      | 0                      | 0                     | 0       |
| Huber & Associates, Inc.                             | Information technology consulting | 10,147              | 117           | 10,264      | 0                      | 0                     | 0       |
| Kramer & Frank, P.C.                                 | Legal counsel                     | 247                 | 3             | 250         | 0                      | 0                     | 0       |
| McLagan Partners, Inc.                               | Human resources consulting        | 12,110              | 140           | 12,250      | 0                      | 0                     | 0       |
| Step toe & Johnson LLP                               | Legal counsel                     | 26,096              | 301           | 26,397      | 0                      | 0                     | 0       |
| Thompson Coburn LLP                                  | Legal counsel                     | 249,546             | 2,875         | 252,421     | 572                    | 3,688                 | 4,260   |
| Williams Keepers LLC                                 | Financial audit                   | 43,756              | 504           | 44,260      | 3,050                  | 0                     | 3,050   |
| Operation administrative expenses subtotal           |                                   | 693,948             | 7,996         | 701,944     | 4,180                  | 4,105                 | 8,285   |
| Internal investment administrative expenses          |                                   |                     |               |             |                        |                       |         |
| CT Corporation System                                | Statutory representation          | 611                 | 7             | 618         | 0                      | 0                     | 0       |
| Investment Training and Consulting Institute, Inc.   | Audit services                    | 62,678              | 722           | 63,400      | 0                      | 0                     | 0       |
| McLagan Partners, Inc.                               | Human resources consulting        | 12,110              | 140           | 12,250      | 0                      | 0                     | 0       |
| Thompson Coburn LLP                                  | Legal counsel                     | 584,863             | 6,741         | 591,604     | 0                      | 0                     | 0       |
| United States Treasury                               | Statutory representation          | 35                  | 0             | 35          | 0                      | 0                     | 0       |
| Internal investment administrative expenses subtotal |                                   | 660,297             | 7,610         | 667,907     | 0                      | 0                     | 0       |
| Total professional/consultant fees                   |                                   | \$1,354,245         | \$15,606      | \$1,369,851 | \$4,180                | \$4,105               | \$8,285 |

Information on investment management and consulting fees can be found in the *Schedule of Investment Expenses* on page 53-54.

*Additional Financial Information***INVESTMENT SUMMARY**

PENSION TRUST FUNDS - YEAR ENDED JUNE 30, 2010

|   | June 30, 2009   |                 |   |                                     | June 30, 2010   |                 |                                   |
|---|-----------------|-----------------|---|-------------------------------------|-----------------|-----------------|-----------------------------------|
| Type of Investment  | Cost Value      | Fair Value      | Purchases and<br>Capital Additions<br>at Cost | Sales and<br>Redemptions<br>at Cost | Cost Value      | Fair Value      | Percent<br>of Total<br>Fair Value |
| <b>Fixed income</b>   |                 |                 |   |                                     |                 |                 |                                   |
| Treasury bonds, notes, and bills  | \$ 776,316,193  | \$ 815,705,766  | \$ 91,541,076                                 | \$ (105,858,641)                    | \$ 761,998,628  | \$ 838,787,993  | 14%                               |
| Government bonds and gov't<br>mortgage-backed securities                  | 64,718,741      | 64,539,251      | 7,493,423                                     | (34,333,682)                        | 37,878,482      | 37,757,077      | 1                                 |
| Corporate bonds   | 172,415,207     | 156,852,135     | 71,704,539                                    | (119,432,637)                       | 124,687,109     | 123,436,648     | 2                                 |
| Convertible bonds   | 4,057,400       | 4,329,142       | 1,703,348                                     | (2,955,532)                         | 2,805,216       | 3,232,719       | 0                                 |
| Collateralized mortgage obligations                                       | 98,023,709      | 108,751,920     | 140,598,964                                   | (133,640,060)                       | 104,982,613     | 106,322,010     | 2                                 |
| International corporate bonds   | 40,212,722      | 14,906,766      | 7,874,110                                     | (11,076,997)                        | 37,009,835      | 12,773,664      | 0                                 |
| Bank loans  | 185,647,129     | 168,439,460     | 13,525,960                                    | (110,237,064)                       | 88,936,025      | 87,268,972      | 1                                 |
| Total fixed income  | 1,341,391,101   | 1,333,524,440   | 334,441,420                                   | (517,534,613)                       | 1,158,297,908   | 1,209,579,083   | 20                                |
| <b>Common stock</b>   | 682,229,129     | 590,861,097     | 398,387,312                                   | (182,483,920)                       | 898,132,521     | 839,700,818     | 14                                |
| <b>Preferred stock</b>  | 0               | 0               | 11,853,018                                    | (2,978,088)                         | 8,874,930       | 7,962,150       | 0                                 |
| <b>International investments</b>  |                 |                 |   |                                     |                 |                 |                                   |
| International equities  | 567,512,018     | 839,627,824     | 269,663,337                                   | (305,719,639)                       | 531,455,716     | 818,029,616     | 13                                |
| Foreign currency  | 6,623,531       | 6,183,752       | 53,733,136                                    | (56,249,157)                        | 4,107,510       | 4,050,737       | 0                                 |
| Total international investments   | 574,135,549     | 845,811,576     | 323,396,473                                   | (361,968,796)                       | 535,563,226     | 822,080,353     | 13                                |
| <b>Real estate investment trusts</b>                                      | 1,215,569       | 1,212,714       | 0   | (1,215,569)                         | 0               | 0               | 0                                 |
| <b>Venture capital<br/>limited partnerships</b>                           | 2,535,837,655   | 2,873,401,682   | 645,151,338                                   | (515,182,195)                       | 2,665,806,798   | 3,319,969,737   | 53                                |
| <b>Investments (per <i>Statements of<br/>Plan Net Assets</i> page 27)</b> | 5,134,809,003   | 5,644,811,509   | 1,713,229,561                                 | (1,581,363,181)                     | 5,266,675,383   | 6,199,292,141   | 100%                              |
| <b>Short-term investments</b>   |                 |                 |   |                                     |                 |                 |                                   |
| Short-term investment funds   | 608,718,714     | 608,718,714     | 748,857,089                                   | (751,075,775)                       | 606,500,028     | 606,500,028     |                                   |
| Repurchase agreements   | 440,603         | 440,603         | 161,707,627                                   | (161,614,765)                       | 533,465         | 533,465         |                                   |
| Total short-term investments  | 609,159,317     | 609,159,317     | 910,564,716                                   | (912,690,540)                       | 607,033,493     | 607,033,493     |                                   |
| <b>Invested securities<br/>lending collateral</b>                         |                 |                 |   |                                     |                 |                 |                                   |
| Corporate bonds   | 327,699,674     | 271,489,250     | 31,925,319                                    | (282,281,229)                       | 77,343,764      | 67,660,518      |                                   |
| Short-term investment funds   | 113,787,663     | 113,787,663     | 10,023,510,935                                | (10,012,318,944)                    | 124,979,654     | 124,979,654     |                                   |
| Total invested securities<br>lending collateral                           | 441,487,337     | 385,276,913     | 10,055,436,254                                | (10,294,600,173)                    | 202,323,418     | 192,640,172     |                                   |
| Total investments   | \$6,185,455,657 | \$6,639,247,739 | \$12,679,230,531                              | \$(12,788,653,894)                  | \$6,076,032,294 | \$6,998,965,806 |                                   |

Note: Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS office.



*Additional Financial Information***INVESTMENT SUMMARY**

INTERNAL SERVICE FUNDS - YEAR ENDED JUNE 30, 2010

| Type of Investment    | June 30, 2009 |             | Purchases and<br>Capital Additions<br>at Cost | Sales and<br>Redemptions<br>at Cost | June 30, 2010 |             | Percent<br>of Total<br>Fair Value |
|-----------------------|---------------|-------------|---|-------------------------------------|---------------|-------------|-----------------------------------|
|                       | Cost Value    | Fair Value  |   |                                     | Cost Value    | Fair Value  |                                   |
| Repurchase agreements | \$2,642,046   | \$2,642,046 | \$662,791,899                                 | \$(662,330,872)                     | \$3,103,073   | \$3,103,073 | 100%                              |

Note: Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS office.

# COLLABORATION

Finding balance and keeping momentum is important to a new generation embarking upon retirement. Enduring the hilly landscape of today's economy is difficult but a challenge worthwhile. MOSERS is geared toward achieving long-term stability for members as they begin their journey towards a satisfying retirement.

*Every milestone presents a new opportunity*





## INVESTMENT SECTION

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## CHIEF INVESTMENT OFFICER'S REPORT



Missouri State Employees' Retirement System

**Mailing Address**

PO Box 209 • Jefferson City, MO 65102-0209

**Building Location**

907 Wildwood Drive • Jefferson City, MO

October 21, 2010

Dear Members:

It is my pleasure to present to you the *Investment Section* of the MOSERS *Comprehensive Annual Financial Report* for the fiscal year ended June 30, 2010. As of this report, your pension fund has total assets of \$6.8 billion. During the year, the investments generated \$870 million in earnings.

MOSERS' investment management practices are geared toward achieving long-term stability to assure that retirement benefits promised you by the state of Missouri are secure and will be paid at the lowest possible cost to the taxpayers. Whether relative to our actuarial assumed rate, our internal benchmarks, or our peers, FY10 was a strong year for the MOSERS investment program. Following are a few of the highlights for the fiscal year just ended:

- MOSERS' investment return for the fiscal year was 14.3% (net of fees and expenses), which compared very favorably to the actuarially assumed rate of 8.5%. This will help to reduce future contributions from the state of Missouri.
- This year's performance exceeded the policy benchmark return by 0.94%, generating an additional \$49 million above what would have been earned had the portfolio been invested passively. This marked the tenth straight fiscal year that our investment returns have exceeded our policy benchmark.
- At the broad asset class level, returns were distributed fairly evenly — public equities produced 14.3%, public debt portfolio generated 14.8%, alternatives produced 11.8%.
- Over the 15-year period ended June 30, 2010, the portfolio has generated performance of 1.3% per year in excess of the policy benchmark, which translates into approximately \$1.2 billion of additional earnings above what would have been earned had the portfolio been invested passively. Similarly, strong excess returns exist for the 5- and 10-year periods as well.
- Over the 15-year period ended June 30, 2010, the portfolio's performance has exceeded 95% of our peers as defined by the Rogerscasey universe of public pension plans with assets in excess of \$1 billion. Similarly, strong peer comparisons exist for the 5- and 10-year periods as well.

### 2010 Market and Performance Review

There were two very distinct periods in the 2010 fiscal year. The first nine months of the year were characterized by a broad view that the global economy was recovering (more slowly than average coming out of recession) but recovering none the less. This view was very positive for battered down "risky" assets in general, and stocks in

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 MO Relay: 7-1-1 (Voice) • (800) 735-2966 (TTY)  
 Email: [mosers@mosers.org](mailto:mosers@mosers.org) • Website: [www.mosers.org](http://www.mosers.org)

particular. In fact, over that nine-month time-frame the world equity markets were up over 27%, with small-cap stocks and emerging markets stocks (those perceived to be the most risky) up over 34%. However, by the end of the third quarter of our fiscal year (March 31) new storm clouds started to appear on the horizon in the form of PIIGS. For those not up on financial markets' acronyms, PIIGS stands for Portugal, Italy, Ireland, Greece and Spain. The ugliest of the litter, Greece, was finding it harder and harder to roll over its debt as investors became concerned about its ability to make good on its IOUs. This, in turn, was leading to market skittishness regarding how many of those IOUs lay hidden inside European banks. European banks had not been through rigorous stress tests like U.S. banks and, as a result, uncertainty and fear reemerged in April as investors struggled with what a default of one of the European Union members might mean for the euro currency and, more broadly, for a weak global economy. With this as the backdrop, investors, not wishing to relive 2008 moved quickly to reduce investments in "risky" assets. Over the last three months of the fiscal year, world equity markets lost over 12%, giving back over half of the preceding nine months of gains.

While the markets whipsawed during the fiscal year, we positioned the MOSERS portfolio to remain consistently defensive relative to our benchmark. While pleased that the markets were trading higher during the first three quarters, it seemed unlikely that all of the structural headwinds that nearly pushed the global economy into an abyss less than a year earlier, could have been totally eliminated with the magic of a federal government printing press, the home buyer's tax credit and, "cash for clunkers." Nonetheless, by the end of March, the MOSERS portfolio was lagging the benchmark by over 3.6%. However, as market optimism swung to pessimism starting in late April, the portfolio began to outperform the market benchmark. For the last quarter of the fiscal year, while equities were down over 12%, our portfolio fell only 2.7% and solidly outpaced the benchmark, which fell 6.3% during the quarter. The end result for the entire year was a fiscal year return of 14.3% for the portfolio, outpacing the policy benchmark which returned 13.4%.

### **Traversing the Ever-Changing Financial Landscape**

In 2002, the board made a decision to head down a road less traveled by other institutional investors. That road involved reducing the portfolio's equity exposure and replacing that exposure with various forms of alternative investments including hedge funds, timberland, distressed debt, real estate, and private equity. We believed at the time, and stated with passion, that stocks were not priced to produce returns in excess of the aggregate of these alternatives, and therefore, it made little sense to concentrate such a large majority (at the time, as much as 75%) of MOSERS' assets and risk in the public equity asset class.

By 2010, investors of all types have turned the road less traveled into an interstate highway. A Cost Effectiveness Measurement (CEM) study at the end of 2001 revealed that the average public pension fund had 61% of their assets in stocks, 32% in fixed income and cash, and 7% in alternative investments. Today, a similar CEM study identified those asset class averages to be 48%, 32%, and 20%, respectively. Without question, the trend in the recent past has been to reduce equity exposure and increase everything else but equities. The mind set has indeed changed.

### **Preparing for New Opportunities (or maybe the same old ones revisited)**

As the trend toward lower equity exposure continues, investors shouldn't lose sight of one of our core investment beliefs: that "asset classes will be in and out of favor at different times and they all tend to be cyclical, thus flexibility is key." Simply stated, no investment offers the birthright of a high return; the price one pays for the



investment must be considered. At some point, stock prices will become sufficiently cheap (because prices have fallen and/or because earnings have increased) and alternatives and fixed income prices will become sufficiently expensive to the point that their diversification benefits are overwhelmed by the return potential of stocks. This is no different than the condition that existed at the end of the 1990s, except that at the end of the 1990s the expensive asset was stocks and now the expensive assets are everything else. So, while the average investor continues to move away from stocks, it's quite possible that the savvy investor should be focused on increasing equity exposure, knowing that the day will come when the average investor will be willing to pay him a lot more for equities than he paid for them. The \$64,000 question is where are we currently in the long-term equity cycle?

The answer to the question is not straightforward. On one hand, I think we must ratchet down our expected returns for all asset classes including equities because of an aging population, high debt levels and what they both imply for future economic growth. Debt reduction is deflationary at its very core and while corporations have aggressively cut costs using the savings to pay down debt and build cash levels, without the consumer to buy the end product we should not expect strong earnings growth. With that said, equities appear fairly valued to marginally cheap to me at current levels and, just as important, several alternative investments and fixed income investments appear priced to perfection. Is it possible that the best thing for investors to be doing right now, at the margin, is to be moving money back into global large-cap household names with solid balance sheets and relatively stable earnings? I think the answer is yes, it's very possible and getting more so all the time.

Let me further explain. At the beginning of the decade of the 2000s, the price earnings ratio (P/E) of the S&P 500 stood at about 30, well above the historical long-term average of 15. By the end of the decade, the economy had witnessed two recessions and stock prices had fallen about 24%. While prices were down by 24%, ironically, earnings had risen by about the same 24%. The resulting P/E at the end of the decade (12/31/09) was about 18. By 6/30/2010, prices had fallen another 7.5%, while earnings had risen further, bringing the current P/E (based on the last four quarters of reported earnings) down to about 15. We still have a ways to go for stocks to be the bargain they were at the beginning of the 1980s (on 12/31/79 the P/E of the S&P 500 was 7.5). However, some of the out-of-favor sectors like health care and energy are starting to look appealing to us. The bottom line is, no one knows when marginal selling will once again turn into marginal buying, but it will happen and we believe that day may very well be closer than the majority of investors believe. Remember, markets are cyclical and opportunity lies ahead for those willing to do their homework and be contrarian.

In closing, I would like to thank the ultimate fiduciaries of MOSERS, the board of trustees for their willingness to embrace a governance structure that allows the MOSERS investment program to "break away" from the pack. While there is perceived safety in the pack, by definition it is destined to produce average returns. Average is simply unacceptable when your future financial security is at stake.

Until next year,



Rick Dahl  
Chief Investment Officer



## INVESTMENT CONSULTANT'S REPORT



**Summit** Strategies Group

October 21, 2010

The Board of Trustees  
Missouri State Employees' Retirement System  
907 Wildwood Drive  
Jefferson City, MO 65109

Dear Board Members,

When I was told this year's CAFR would show pictures of old and new things, my immediate fear was a request for my high school year book picture! Luckily, that request never came.

"Something old, something new, something borrowed, something blue." I have no idea what this means or why it exists, except that your bride is always "new," probably because the other three are not attributes you seek on your wedding day. But it does have some relevance to this year's annual letter, if we break it into equal parts.

**"Something old, something new"** – As long as "old" refers to FY09 results and "new" refers to FY10 results, I'm all for this one! As opposed to last year's letter describing the worst financial crisis to hit the world in 80 years and an investment return of -19%, this year's letter can express some relief that risk assets "rebounded" off of their very low lows of 2008 and the first quarter of 2009 to recover much of the loss with a return for FY10 of 14.3%. This translates into a recovery of nearly \$1 billion of portfolio value in 12 months. While not back to 2007 highs, it's at least nice to see strong absolute results for the year. All risk assets showed very strong results for the period as investors came to agree that "the world is ending" prices of risk assets were overly pessimistic and bid prices back up to the "we've still got a lot of work and a long way to go" prices.

Most of the "Armageddon" avoidance was accomplished by massive, coordinated global central bank and government responses to throw in everything available to "keep the patient" alive. This was great for the financial market in the 12 month "rebound," but we are now seeing dramatic market swings into, and out of, risky assets depending on the most recent sign that the economy is either recovering or struggling. In my opinion, the reason for the market jitters is the dawning realization that all of the developed world "stimuli" was created with borrowed money and the race is now on to, hopefully, get back to prosperity before the debts come due.

8182 Maryland Avenue, 6th Floor • St. Louis, Missouri 63105 • 314.727.7211, 314.727.6068 (fax)

**“Something borrowed, something blue”** – Borrowing, or more specifically, too much debt, is what got the world into this mess and it defies logic to assume that more debt will get us out of the mess. Therefore, while we love the FY10 results, we realize that the long-term challenges we spoke of last year are every bit as real as we thought they’d be last year. Our brightest hope is that the developed world economies return to prosperity and prosperity coupled with some good old fiscal “belt tightening” will allow us to pay down the debts we owe and return to “normal.” This is a long process of austerity that does not bode well for investors in risk assets. A less attractive outcome, and one that is already happening, is the destruction of massive amounts of bad debt, such as inflated mortgages, bank loans, consumer and corporate loans. Not the best environment for investors in risk assets. It is news that can make you “blue.”

However, we can’t simply sit around on our hands (i.e., cash) waiting for the pain to go away and then sweep in and pick up bargains. We need to earn a real return of 5% (that’s after inflation) to keep up with the liabilities. If the broad markets can’t generate these levels of returns then it needs to come from somewhere else. If it isn’t the investment portfolio, it’s the taxpayer. So together with the MOSERS investment staff, we try to add value, at the margin of 1% to 2% per year, to what the market returns. Each 1% incremental return means \$68 million dollars coming from the portfolio and not the taxpayer. And I’m pleased to report that FY10 saw this level of relative outperformance and that number increases over the 3-, 5-, 7-, and 10-year periods. In fact, the return generated by the MOSERS portfolio for 10 years is 4.9% versus a policy benchmark of 2.6%. If you assume the average fund value for the decade was \$6 billion, the incremental return of 2.3% annually results in over \$750 million of value-added results, and also makes MOSERS the top performing large public fund in the country.

We believe opportunities exist in emerging economies, which have very different economic environments than the developed world. Additionally, there will be investment opportunities based on a contrarian mind-set and the recognition that many pressured owners of assets will be forced to sell based on their particular circumstance. We will be focusing our attention and efforts on those opportunities.

Sincerely,



Stephen P. Holmes, CFA  
President

## INVESTMENT POLICY SUMMARY

### Guiding Principles

Critical to the financial security of present and future benefit recipients is the effectiveness and efficiency of the system's asset management program. The MOSERS Board of Trustees, charged with the responsibility for investing the assets of the system in a manner consistent with fiduciary standards set forth in the prudent person rule, has adopted the following fundamental principles to guide all investment-related decisions:

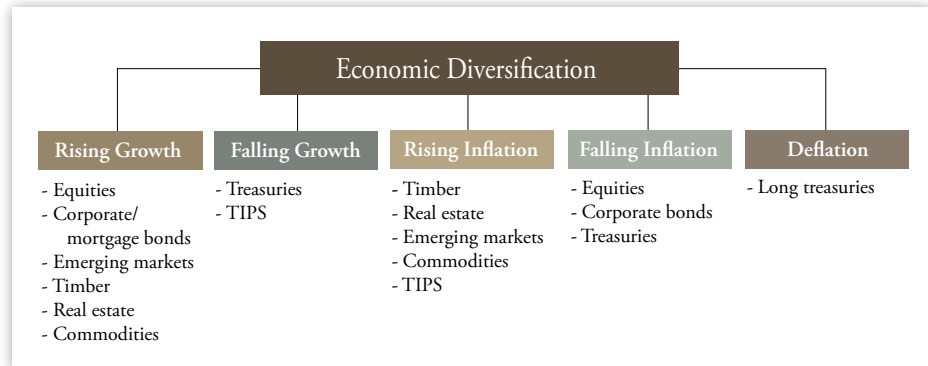
- Preserve the long-term corpus of the fund.
- Maximize total return within prudent risk parameters.
- Act in the exclusive interest of the members of the system.

The investment policy summary serves as a reference point for management of system assets and outlines MOSERS' investment philosophy and practices.

### Investment Objective

In keeping with the three guiding principles, the board has adopted the following broad investment objectives:

- Develop a real return objective (RRO)<sup>1</sup> that will:
  - Keep contribution rates reasonably level over long periods of time, absent changes in actuarial assumptions.
  - Maintain contribution rates consistent with historical levels ranging from 8% to 12% of covered payroll.



- Establish an asset allocation policy that is expected to meet the RRO over long periods of time, while minimizing volatility.
- Minimize the costs associated with implementation of the asset allocation through the efficient use of internal and external resources.

### Investment Beliefs

MOSERS' internal investment staff and external asset consultant have arrived at investment beliefs, which are the foundation for implementation of the investment portfolio to achieve the board's objectives. These beliefs help to form the basis of every decision made within MOSERS' portfolio. They are the fundamental concepts underlying the MOSERS' investment program. These beliefs are as follows:

- **Diversification is critical because the future is unknown.** MOSERS' investment portfolio has been built upon the premise that very little is known about what the future holds and, as a result, the portfolio is structured to combat a variety of economic outcomes.

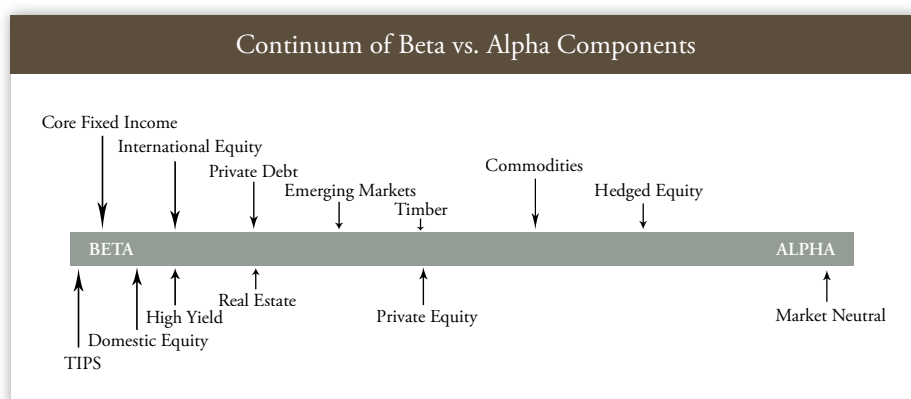
As a result, the portfolio will have significant diversification to provide risk reduction in a variety of markets. The chart above reflects the various economic environments and the types of investments that should be expected to perform well in those environments.

- **Every investment should be examined in the context of the two distinct return components – beta and alpha.** Beta is the return which is expected to be earned by investing passively within a specific asset class. Exposures to beta can be purchased very cheaply and, over long periods of time, it is expected that returns from beta should be positive and coincide with the risk associated with a given asset class. In contrast, alpha is the return generated through a manager's ability to select particular investments that perform better than the asset class as a whole. Alpha is a zero-sum game. For every winner, there is a loser on the other side. Historically, MOSERS' portfolio has been heavily weighted towards investments that provided mainly beta returns. MOSERS

<sup>1</sup> The RRO is the rate by which the total return exceeds the inflation rate as measured by the CPI, U.S. City Average for all Urban Consumers (CPI-U). MOSERS' real return is the excess return over the CPI utilizing the formula:  $\text{Real} = (1 + \text{Nominal}) \div (1 + \text{CPI})$ . As of June 30, 2010, the RRO was 5.3%.

made a decision in 2002, after a formal asset/liability study, to place a greater emphasis on generating alpha returns within the portfolio. At that time, it was expected that returns strictly from beta would not generate the returns necessary to fund the liabilities of the system. That decision was confirmed in the most recent formal asset/liability study completed in July 2007. As reflected in the chart above, several alpha-generating strategies are in place within the portfolio today.

- **Asset classes will be in and out of favor at different times and they all tend to be cyclical, thus flexibility is key.** This belief acknowledges that economies are cyclical; thus, it is only logical that certain investments will fair better than others depending upon the current economic environment. In order to make a “good” investment, the price one pays for an investment must be considered. No investment offers the birthright of a high return. In order to capitalize on potential opportunities that may arise due to asset classes being “cheap” or “expensive” relative to their historical norms, the board has granted the CIO the ability to make strategic sub-asset class allocation decisions subject to predefined ranges.
- **Management of system assets is not about risk or return.** It’s about risk-adjusted returns with a long-term focus on the liabilities. While it is easy to focus all attention on the returns a portfolio is able to generate, the



risks relative to the liabilities of the system must be taken into consideration. Despite MOSERS' infinite time horizon, it must not be overlooked that there are benefits to be paid in the short run. In addition, the “cost of volatility” within the portfolio must not be underestimated as volatility has a dramatic impact on the contribution rate and thus the state’s ability to fund the plan going forward.

## Roles and Responsibilities

### *Board of Trustees*

The board of trustees bears the ultimate fiduciary responsibility for the investment of system assets. Members of the board must adhere to state law and prudent standards of diligence with respect to their duties as investment fiduciaries. Accordingly, they are required to discharge their duties in the interest of plan participants. They must also “act with the same care, skill, prudence, and diligence under prevailing circumstances that a prudent person, acting in a similar capacity and familiar with those matters, would use in the conduct of a similar enterprise with similar aims.”<sup>2</sup> Specifically

related to investments, the board is charged with the duties of establishing and maintaining broad policies and objectives for the investment program along with the recommendations of staff and the external asset consultant.

### *Executive Director*

The executive director is appointed by and serves at the pleasure of the board. The board has given the executive director broad authority for planning, organizing, and administering the operations and investments of the system under broad policy guidance from the board. Specifically with regard to investments, the executive director is broadly responsible for the oversight of the investment program. The executive director must ensure the system assets are invested in accordance with the board’s policies and that internal controls are in place to safeguard system assets. The executive director must also certify that all manager hiring and termination decisions were made in accordance with the board’s governance policy. In addition, the executive director certifies strategic allocation decisions made by the CIO and external asset consultant.

<sup>2</sup> Section 105.688, RSMo - Investment Fiduciaries, Duties.

### ***Chief Investment Officer and Internal Staff***

The CIO serves at the pleasure of the executive director, yet has a direct line of communication with the board on investment-related issues. The CIO has primary responsibility for the overall direction of the investment program. The CIO works with the external asset consultant and executive director in advising the board on policies related to the investment program. The CIO has primary responsibility to make hiring and termination decisions related to money managers with the approval of the external asset consultant. The CIO is also charged with the responsibility of making strategic allocation decisions with the approval of the external asset consultant. Other responsibilities of the CIO include monitoring the investment of system assets, oversight of external money managers and the internally managed portfolios, and keeping the board apprised of situations which merit their attention. The internal investment staff is accountable to the CIO.

### ***External Asset Consultant***

Summit Strategies Group of St. Louis, Missouri serves as the system's external asset consultant. The external asset consultant serves at the pleasure of the board. The primary duties of the external asset consultant are to:

- Advise the board on policies related to the investment program.
- Provide a third-party perspective and level of oversight to the system's investment program.

The external asset consultant must also approve all manager hiring and termination decisions and strategic

allocation decisions made by the CIO. The external asset consultant also provides advice and input to the CIO and internal investment staff on investment-related issues and money manager searches.

### ***Chief Auditor***

The chief auditor reports directly to the executive director and, if in the opinion of the chief auditor circumstances warrant, may report directly to the board. The chief auditor is independent of the system's investment operations and, among other things, is responsible for providing objective audit and review services for the investment operations. It is the chief auditor's objective to promote adequate and effective internal controls at a reasonable cost, which results in suggested improvements that will lead to economies and efficiencies in the system's investment operations.

### ***Master Custodian***

Bank of New York Mellon serves as the master custodian of the system's assets except in cases where investments are held in partnerships, commingled accounts, or unique asset classes where it is impossible for them to do so. The master custodian is responsible for maintaining the official book of records, providing performance reports, and serving as an additional layer of risk control in the safekeeping of system assets.

### ***Asset Allocation***

Determining the system's asset allocation is regarded as one of the most important decisions in the investment management process. The board, with advice from staff and

the asset consultant, has developed a policy asset allocation that is designed to achieve the long-term required return objectives of the system, given certain risk constraints. The current asset allocation reflects the need for a diversified portfolio, which will perform well in a variety of economic conditions and will help reduce the portfolio's overall volatility. In determining the optimum mix of assets, the board considers five factors:

- The expected rate of return for each asset class.
- The expected risk of each asset class.
- The correlation between the rates of return of the asset classes.
- The investment objectives and risk constraints of the fund.
- The impact of the portfolio's volatility on the contribution rate.

The policy benchmarks and policy allocation as of June 30, 2010, are illustrated in the table at the top of the following page.

While the board maintains a set policy allocation mix, they have taken steps to provide flexibility by granting authority to the CIO, with the approval of the external asset consultant and certification of the executive director, to make strategic allocation decisions based upon expectations for each sub-asset class. This flexibility has allowed the system to take advantage of changing market conditions. The board has placed ranges on the sub-asset class allocations in order to maintain appropriate risk controls. These ranges are included in the table at the top of the following page.



**MOSERS' Asset Allocation**

| Asset Class                | Policy Weight     | Allocation Range | Policy Benchmark      |
|----------------------------|-------------------|------------------|-----------------------|
| <b>Public Equity</b>       | <b>45.0%</b>      |                  | <b>MSCI ACWI</b>      |
| Domestic                   | Benchmark weight* | +/- absolute 10% |                       |
| Int'l developed            | Benchmark weight* | +/- absolute 10% |                       |
| Emerging markets           | Benchmark weight* | +/- absolute 5%  |                       |
| <b>Public Debt</b>         | <b>30.0%</b>      |                  | <b>Blended Return</b> |
| Core fixed income          | 10.0%             | 5.0% - 15.0%     | Barclays Aggregate    |
| TIPS                       | 10.0%             | 5.0% - 15.0%     | Barclays TIPS         |
| High yield                 | 5.0%              | 0.0% - 10.0%     | Barclays High Yield   |
| Market neutral             | 5.0%              | 0.0% - 10.0%     | T-Bills + 4%          |
| <b>Alternatives</b>        | <b>25.0%</b>      |                  | <b>Blended Return</b> |
| <i>Real assets</i>         | 15.0%             | 10.0% - 20.0%    | Blended Return**      |
| Commodities                | 3.0%              |                  | GSCI                  |
| Timber                     | 6.0%              |                  | NCREIF Timberland     |
| REITs/private RE           | 6.0%              |                  | Wilshire REITs        |
| <i>Private investments</i> | 10.0%             | 5.0% - 15.0%     | S&P 500 + 3%          |
| Private equity             | 7.5%              |                  |                       |
| Private debt               | 2.5%              |                  |                       |

\* The public equity sub-asset class target allocations are not static weights. The weights float based upon capitalization of the MSCI ACWI benchmark.

\*\* The policy benchmark is based upon the blending of GSCI, NCREIF Timberland, and Wilshire REITs at their policy benchmark weights.

**Rebalancing**

It is the responsibility of staff to ensure that the asset allocation adheres to the system's rebalancing policy. Staff has engaged NISA Investment Advisors, LLC of St. Louis, Missouri, to assist in the oversight and implementation of the rebalancing policy. MOSERS utilizes a combination of cash market and exchange traded futures transactions to maintain the total fund's allocation at the broad policy level. Month-end reviews are conducted to bring the portfolio back within allowable ranges of the broad policy targets.

**Risk Controls**

MOSERS' investment program faces numerous risks; however, the primary risk to MOSERS is that the assets will

not support the liabilities over long periods of time. In order to control this risk and numerous other risks that face the system, the board has taken the following steps, on an ongoing basis, to help protect the system:

- Actuarial valuations are performed each year to ensure the system is on track to meet the funding objectives of the plan. In addition, every five years an external audit of the actuary is conducted to ensure that the assumptions being made and calculation methods being utilized are resulting in properly computed liabilities.
- Asset/liability studies are conducted at least once every five years. The purpose of these studies is to ensure that the current portfolio design is structured to meet the system's

liabilities. During these studies, investment expectations are also reexamined in more detail.

- A governance policy, which incorporates investment limitations, is in place to ensure that board policies are clearly identified. Within these documents, the desired outcomes are identified, responsibilities for individuals are identified in relation to particular areas of the portfolio's management, and details are provided as to how outcomes will be measured. Reporting requirements are clearly identified to ensure appropriate checks and balances are in place. In addition, annual performance audits are conducted to ensure the performance measurement tools and methodologies being utilized are proper.

**Performance Objectives and Monitoring Process**

Generating returns net of expenses equaling the RRO of 5.3% plus inflation remains the primary performance objective for the total fund over the long term. The reason for the long-term focus on this objective is to preclude the temptation to overreact to events in the marketplace that have no relevance in the management of the relationship between the system's assets and liabilities. The resulting dilemma is the conflicting need to evaluate investment policy implementation decisions over shorter time frames while maintaining the longer-term focus necessary to manage and measure the fund's performance relative to the RRO. To address



this problem, the board evaluates performance relative to policy and strategy benchmarks. This helps to evaluate the board's broad policy decisions and the staff and external consultant's implementation decisions. Policy benchmarks measure broad investment opportunities of each sub-asset class in which MOSERS has chosen to invest. The strategy benchmarks represent decisions made by the CIO to strategically deviate from the policy asset allocation for each sub-asset class. The return of the strategy benchmarks are determined based upon the actual weight of the asset class multiplied by the appropriate benchmark.

The policy and strategy benchmarks are used in the following manner to evaluate decisions made by the board and staff:

- **Board Decisions:** The value added through board policy decisions is measured by the difference between the total fund policy benchmark return and the RRO. This difference captures the value added by the board through their policy asset allocation decisions relative to the return necessary to fund the system's liabilities. A policy benchmark return greater than the RRO reflects value added through board decisions. A policy benchmark return less than the RRO reflects losses or shortfalls in performance in funding the liabilities. These policy decisions are measured over long periods of time.

#### • CIO and External Asset

**Consultant Decisions:** There are two components to decisions made by the CIO and external asset consultant, which are monitored by the board on an ongoing basis. They are 1) strategic sub-asset class allocation decisions, and 2) implementation decisions.

Strategy decisions are sub-asset class allocation choices made by the CIO with the approval of the external asset consultant and the certification of the executive director to deviate from the policy benchmark weight. The value added through these decisions to overweight or underweight these sub-asset classes is measured by the difference between the strategy benchmark return and the policy benchmark return. This difference captures the value added by the CIO through sub-asset class strategic decisions relative to the board's broad policy allocation decisions. A strategy benchmark return greater than the policy benchmark return reflects value added through the sub-asset class allocation decisions. A strategy benchmark return less than the policy benchmark return reflects losses to the fund's performance based upon strategy decisions. Strategy decisions should be measured over all periods of time with majority weight placed on outcomes that have occurred over a market cycle.

Implementation decisions are money manager selection choices made by the CIO with the approval of the external asset consultant and the certification of the executive director that the

decision was made in accordance within the board's adopted governance policy. The value added through these decisions is measured by the difference between the actual portfolio return and the strategy benchmark return. This difference captures the value added through these external manager selection decisions. An actual portfolio return greater than the strategy benchmark return reflects value added through these external manager selection decisions. An actual portfolio return less than the strategy benchmark return reflects losses to the fund's performance based upon implementation decisions. Implementation decisions should be measured over all periods of time with a majority weight placed on outcomes that have occurred over a market cycle.

The board receives performance information on a quarterly basis to help ensure adequate monitoring of the fund's overall performance objectives.

#### Asset Classes

At the broad asset class level, policy and strategy benchmarks have been established to measure board, strategic, and implementation decisions. At the manager level, performance is measured against appropriate benchmarks for each particular investment mandate. Investment guidelines have been established for each manager outlining specific expectations for each portfolio. Many managers are employed with performance-based fee structures, which help to align the manager's interest with the total fund objectives.

## TOTAL FUND REVIEW

*As of June 30, 2010, the MOSERS investment portfolio had a market value of \$6.8 billion. The graph to the right illustrates the growth of MOSERS' portfolio since the system's inception.*

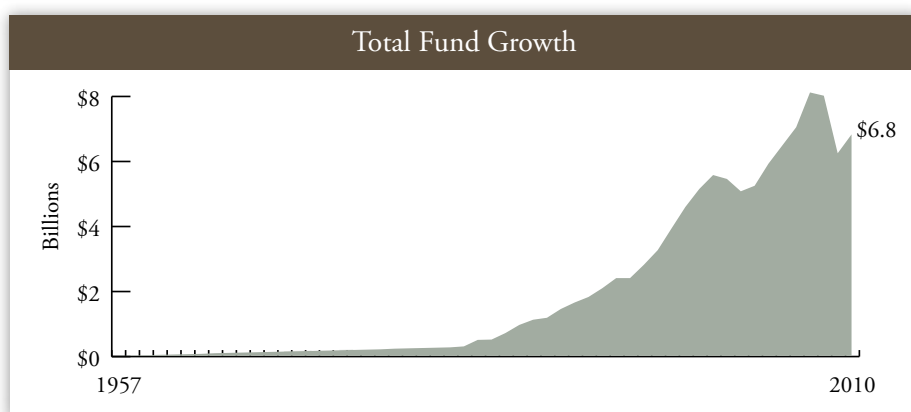


### Investment Performance

MOSERS' investments generated a return of 14.3% (net of fees) for FY10. The total fund return exceeded its policy benchmark of 13.4%. Performance across asset classes varied during the year with emerging market equities generating some of the highest returns within the portfolio overall. The public equity portfolio returns were 14.3%, the public debt portfolio returns were 14.8%, and the alternatives portfolio produced results of 11.8%. The table to the right illustrates each sub-asset classes' contribution to the total return. This fiscal year alone, the MOSERS investment portfolio generated \$870 million to the fund.

### Investment Performance vs. the Required Rate of Return

The first measure of comparison for the portfolio's investment performance is to determine how well the fund performed relative to the required rate of return. The RRO is the rate established by the board that MOSERS' investment portfolio must earn in order to meet future plan obligations after accounting for inflation. The funding objective is to produce a return that equals the RRO



### Sub-Asset Class Returns for Fiscal Year Ended June 30, 2010

| Asset Class                           | Fiscal Year Return | Contribution to Total Return |
|---------------------------------------|--------------------|------------------------------|
| <b>Total public equity</b>            | <b>14.3%</b>       | <b>7.0%</b>                  |
| Domestic equity                       | 15.1               | 3.1                          |
| International developed equity        | 10.2               | 1.8                          |
| Emerging markets                      | 22.8               | 1.1                          |
| Credit opportunities                  | 19.9               | 1.1                          |
| <b>Total public debt</b>              | <b>14.8%</b>       | <b>4.3%</b>                  |
| Core fixed income                     | 19.3               | 1.3                          |
| TIPS                                  | 10.1               | 1.1                          |
| High yield bonds                      | 22.0               | 1.2                          |
| Market neutral                        | 11.6               | 0.7                          |
| <b>Total alternatives investments</b> | <b>11.8%</b>       | <b>2.8%</b>                  |
| Real assets                           | 7.4                | 1.1                          |
| Commodities                           | 8.7                | 0.1                          |
| REITS                                 | 17.9               | 1.1                          |
| Timber                                | (2.2)              | (0.1)                        |
| Private investments                   | 19.3               | 1.7                          |
| Private equity                        | 20.2               | 1.0                          |
| Private debt                          | 18.1               | 0.7                          |
| Cash and securities lending           | N/A                | 0.3                          |
| <b>Total fund</b>                     | <b>14.3%</b>       |                              |

(5.3%) plus inflation. The best known measure of inflation is the Consumer Price Index (CPI).<sup>3</sup> The review of long periods of time is best for purposes of examining fund performance relative to the required rate of return. Given the unpredictability of the investment markets, the portfolio should not be expected to always meet the required rate of return in the

short-term. A review of long periods of time is best to evaluate whether or not the total return has kept pace with the system's funding objectives.

<sup>3</sup> CPI Source: United States Department of Labor, Bureau of Labor Statistics (not seasonally adjusted).

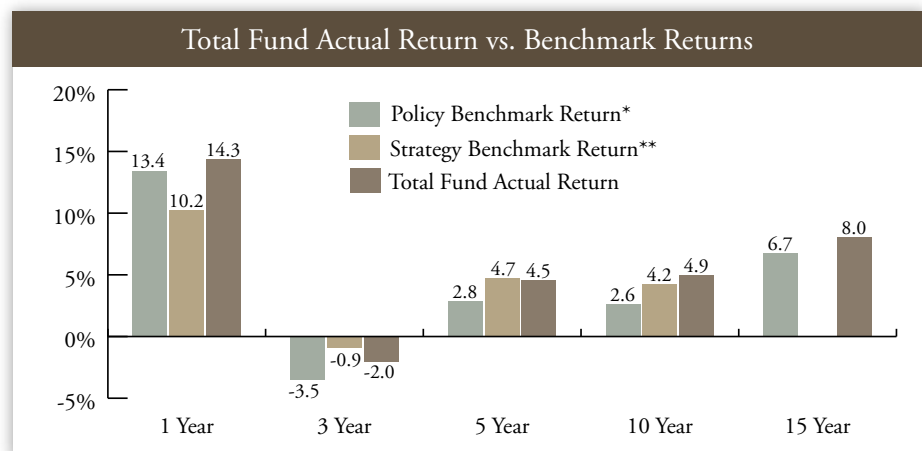
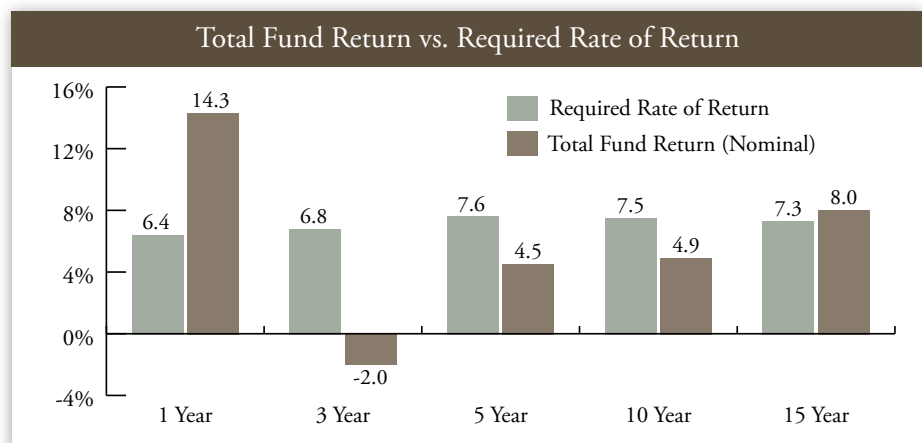
The bar chart to the right reflects that MOSERS' investment returns have exceeded the required rate of return by .7% over the 15-year period ended June 30, 2010.<sup>4</sup>

### Investment Performance vs. Benchmark Comparisons

In addition to measuring performance relative to the required rate of return, the board also compares fund returns to the following two market benchmarks: the policy benchmark and the strategy benchmark.

The policy benchmark provides an indication of the returns that have been achieved (excluding transaction costs) by a portfolio invested passively in the broad market with percentage weights allocated to each asset class in MOSERS' policy asset allocation. Comparison of the total return to the policy benchmark is a reflection of the extent to which the asset allocation (beta) kept pace with the system's funding objectives. For the tenth straight year the actual total return has generated returns in excess of the policy benchmark, contributing \$49 million in excess performance this fiscal year.

The strategy benchmark is more narrowly defined and focuses on sub-asset class allocation decisions made by the CIO. By comparing the policy benchmark to the strategy benchmark, the board is able to determine the value added through strategic decisions (active management) made by the CIO.



\* As of 6/30/10, the policy benchmark was comprised of the following components: 45% total public equity policy benchmark, 30% total public debt policy benchmark, and 25% total alternatives investments policy benchmark.

\*\* As of 6/30/10, the strategy benchmark was comprised of the following components: 46.5% total public equity strategy benchmark, 28.5% total public debt strategy benchmark, and 25% total alternative investments strategy benchmark. A strategy benchmark for the 15-year period is not available.

Value is created when the strategy benchmark returns exceed the policy benchmark returns. Returns for the total fund versus these benchmarks are displayed in the bar chart above.

Similarly, by comparing the actual return to the strategy benchmark, the board will over the long term, be able to judge the success or failure of the staff and the consultant in implementing the CIO's strategic decisions. The

primary implementation decision is in determining which managers the fund should employ. Value is added from manager selection when the total fund return exceeds the strategy benchmark return.

<sup>4</sup> Performance returns were calculated using a time-weighted rate of return on market values.

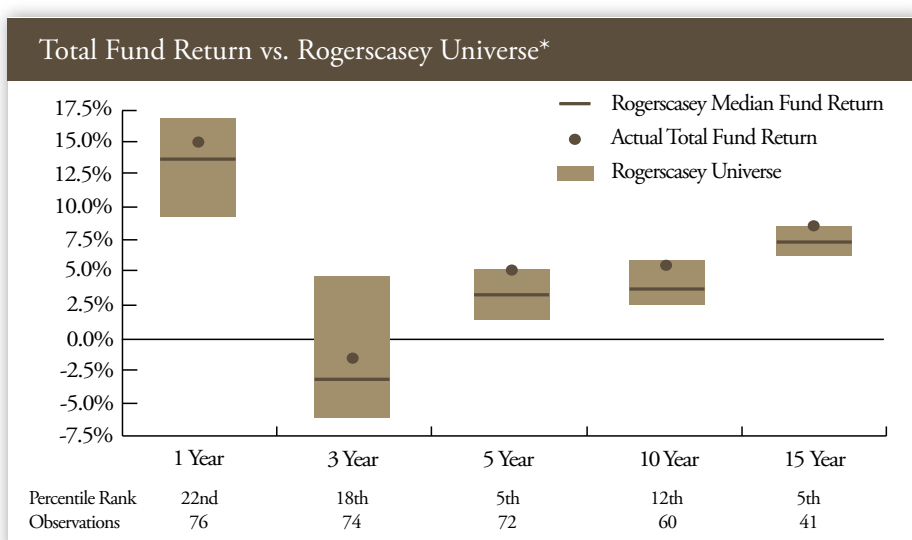
## Investment Performance vs. Peer Universe

To a lesser extent, the board compares total fund performance to the returns generated by a peer group of public pension funds and compiled by Rogerscasey, a diverse global investment solutions firm with clients worldwide. Long-term performance is the best indicator of success. For the past 15-year period ended June 30, 2010, MOSERS' total fund return outperformed 95% of the public pension funds in the Rogerscasey universe of public pension plans with assets in excess of \$1 billion. MOSERS' total fund performance within the Rogerscasey universe is provided in the graph above.

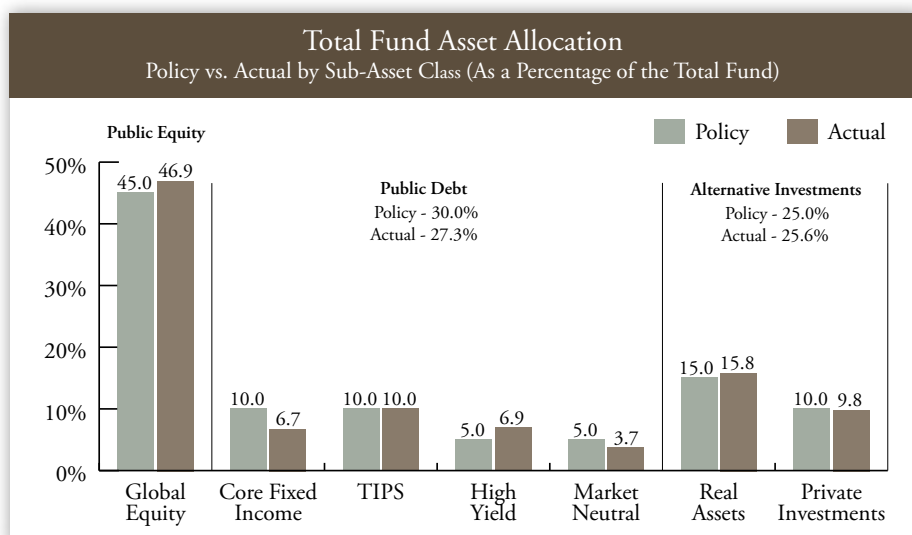
## Total Fund Asset Allocation Overview

As of June 30, 2010, the board's broad policy allocation mix was 45% public equity, 30% public debt, and 25% alternative investments. The policy target as of June 30, 2010, for each sub-asset class, along with the actual strategic allocation to each type of investment is shown in the bar graph to the right.

A formal asset/liability study is conducted every five years to examine the portfolio's ability to generate the required rate of the return given return expectations from the various asset classes represented in the portfolio and to lower the total portfolio



\* Rogerscasey is a global investment solutions firm with clients worldwide. The Rogerscasey universe data reflects performance data of funds with assets in excess of \$1 billion.



volatility. The most recent study conducted in July 2007, concluded that the MOSERS' portfolio could be further diversified by thinking more globally and could entertain more illiquid assets in an effort to enhance risk-adjusted performance, ultimately leading to an acceptable

contribution level and reduced contribution volatility. To that end, the board approved a public equity benchmark change to more global benchmark, MSCI ACWI, and a 5% public equity allocation reduction with a corresponding 5% increase to alternative investments.

The board maintained the flexibility granted to the CIO to make strategic decisions related to the allocation subject to predefined sub-asset class ranges. A strategic decision should be thought of as any decision that might cause MOSERS' actual portfolio to differ from the policy asset allocation. This has allowed MOSERS to capitalize on investment opportunities at the margin by overweighting asset classes that are viewed as "cheap" relative to their historical norm and underweighting asset classes that are "expensive" relative to their historical norm. Since being granted this authority in 2002, the ability to make strategic asset allocation decisions has added 1.3% annually, or approximately \$744 million to the portfolio.

The asset allocation is built upon the belief that diversification is critical. The table below reflects the asset classes and their correlation to each other.

**Total Fund Correlation Table - 5 Years**

|                     | Global<br>Equity | Core<br>Fixed Income | TIPS | High<br>Yield | Market<br>Neutral | Real<br>Assets | Private<br>Investments |
|---------------------|------------------|----------------------|------|---------------|-------------------|----------------|------------------------|
| Global equity       | 1.00             |                      |      |               |                   |                |                        |
| Core fixed income   | 0.46             | 1.00                 |      |               |                   |                |                        |
| TIPS                | 0.30             | 0.76                 | 1.00 |               |                   |                |                        |
| High yield          | 0.64             | 0.36                 | 0.37 | 1.00          |                   |                |                        |
| Market neutral      | 0.66             | 0.56                 | 0.33 | 0.70          | 1.00              |                |                        |
| Real assets         | 0.50             | 0.51                 | 0.37 | 0.25          | 0.53              | 1.00           |                        |
| Private investments | 0.75             | 0.45                 | 0.28 | 0.50          | 0.61              | 0.53           | 1.00                   |

### Statistics

The table below displays the statistical performance data (net of fees) of the total fund as of June 30, 2010.

### Statistical Performance

| Portfolio Characteristics     | 1 Year | 3 Year | 5 Year | 10 Year | 15 Year |
|-------------------------------|--------|--------|--------|---------|---------|
| Annualized return             | 14.3%  | (2.0)% | 4.5%   | 4.9%    | 8.0%    |
| Annualized standard deviation | 8.05%  | 11.76% | 9.77%  | 9.89%   | 9.27%   |
| Sharpe ratio                  | 1.76   | (0.32) | 0.16   | 0.21    | 0.46    |
| Excess return*                | 0.9%   | 1.5%   | 1.7%   | 2.3%    | 1.3%    |
| Beta*                         | 0.68   | 0.68   | 0.71   | 0.80    | 0.84    |
| Annualized alpha*             | 4.79%  | 0.14%  | 2.34%  | 2.63%   | 2.19%   |
| Correlation*                  | 0.96   | 0.96   | 0.95   | 0.96    | 0.96    |

\* As compared to total fund policy benchmark.

## SCHEDULE OF INVESTMENT RESULTS

1-, 3-, 5-, 10- AND 15-YEAR PERIODS

|                                   | 1 Year | 3 Year  | 5 Year | 10 Year | 15 Year |
|-----------------------------------|--------|---------|--------|---------|---------|
| <b>Total fund*</b>                |        |         |        |         |         |
| MOSERS                            | 14.3%  | (2.0)%  | 4.5%   | 4.9%    | 8.0%    |
| Composite total return benchmark  | 13.4%  | (3.5)%  | 2.8%   | 2.6%    | 6.7%    |
| <b>Public equity</b>              |        |         |        |         |         |
| MOSERS                            | 14.3%  | (6.6)%  | 3.5%   | 3.1%    | 7.9%    |
| Public equity composite benchmark | 11.8%  | (10.8)% | 0.3%   | -0.2%   | 6.0%    |
| <b>Public debt</b>                |        |         |        |         |         |
| MOSERS                            | 14.8%  | 4.8%    | 5.2%   | 7.7%    | 7.3%    |
| Public debt composite benchmark   | 11.4%  | 7.3%    | 6.0%   | 8.0%    | 7.5%    |
| <b>Alternative Investments</b>    |        |         |        |         |         |
| MOSERS                            | 11.8%  | (2.0)%  | 4.1%   |         |         |
| Alternatives composite benchmark  | 17.6%  | (3.6)%  | 1.6%   |         |         |

\* Time-weighted rates of return on market values adjusted for cash flows.

- **Total Fund** - As of June 30, 2010, the total fund policy benchmark was comprised of the following components: 45% total public equity policy benchmark, 30% total public debt policy benchmark, and 25% total alternative investments policy benchmark. The individual asset class benchmarks as listed below that are used to generate the total fund policy benchmark.
  - **Public Equity** - As of June 30, 2010, the public equity policy benchmark was based on the capitalization of the MSCI ACWI benchmark, which at that date was 43.0% MSCI World Ex U.S. Net, 44.0% MSCI U.S. Net, and 13.0% MSCI Emerging Markets Net. Similar benchmarks were used in previous years.
  - **Public Debt** - As of June 30, 2010, the public debt policy benchmark was comprised of 33.3% Barclays Aggregate, 33.3% Barclays U.S. TIPS, 16.7% Barclays High Yield, and 16.7% T-Bills + 4%. Similar benchmarks were used in previous years.
  - **Alternative Investments** - As of June 30, 2010, the alternative investments policy benchmark was comprised of the following components: 40% S&P 500 + 3%, 24% Wilshire REIT, 24% NCREIF Timberland, and 12% Goldman Sachs Commodity. This program did not begin until July 2002. Similar benchmarks were used in previous years.



# INVESTMENT MANAGER FEES

## FOR THE YEAR ENDED JUNE 30, 2010

|   | Total Fees  | Manager Fees | Paid/Accrued<br>Performance Fees |
|---|-------------|--------------|----------------------------------|
| <b>Public equity managers</b>                                 |             |              |                                  |
| Baillie Gifford EAFE Plus                                     | \$ 86,594   | \$ 86,594    |                                  |
| Bayview Opportunity Domestic, LP                              | 2,962,128   | 777,570      | \$ 2,184,558                     |
| Blackstone Hedged Equity Fund, LP                             | 2,364,210   | 2,364,210    |                                  |
| Blakeney Onyx, LP   | 2,119,705   | 2,119,705    |                                  |
| Eminence Fund, Ltd.   | 1,502,696   | 623,952      | 878,744                          |
| Grantham, Mayo, and Van Otterloo & Co.                        | 1,083,793   | 1,083,793    |                                  |
| Legg Mason Opportunity Trust                                  | 650,346     | 650,346      |                                  |
| Legg Mason Value Trust  | 312,037     | 312,037      |                                  |
| Leuthold Weeden Capital Management                            | 415,526     | 415,526      |                                  |
| Mastholm Asset Management                                     | 447,457     | 447,457      |                                  |
| Morant Wright Investment Management                           | 726,825     | 726,825      |                                  |
| Nippon Value Investors  | 821,639     | 821,639      |                                  |
| Silchester International Investors                            | 2,213,175   | 2,213,175    |                                  |
| Trust Company of the West                                     | 860,953     | 860,953      |                                  |
| TPG - Axon Partners (Offshore), Ltd.                          | 777,319     | 777,319      |                                  |
| Viking Global Equities III, Ltd.                              | 2,054,186   | 1,139,899    | 914,287                          |
| Total public equity managers                                  | 19,398,589  | 15,421,000   | 3,977,589                        |
| <b>Public debt managers</b>                                   |             |              |                                  |
| Bayview Opportunity Domestic, LP                              | 3,367,216   | 1,063,949    | 2,303,267                        |
| BlackRock Financial Management Mortgage Opportunities         | 265,754     | 265,754      |                                  |
| BlackRock Financial Management Bank Loans                     | 682,246     | 682,246      |                                  |
| BlackRock Financial Management High Yield                     | 278,206     | 278,206      |                                  |
| Total public debt managers                                    | 4,593,422   | 2,290,155    | 2,303,267                        |
| <b>Alternative investment managers</b>                        |             |              |                                  |
| Actis Emerging Markets 3                                      | 994,542     | 994,542      |                                  |
| African Development Partners I, LLC                           | 721,838     | 721,838      |                                  |
| Alinda Infrastructure Fund I, LP                              | 249,669     | 249,669      |                                  |
| Axiom Asia Private Capital Fund II, LP                        | 413,515     | 401,370      | 12,145                           |
| Bayview Opportunity Domestic, LP                              | 2,109,781   | 613,840      | 1,495,942                        |
| Blackstone Real Estate Partners IV                            | 830,628     | 830,628      |                                  |
| Blackstone Real Estate Partners V                             | 1,081,372   | 1,081,372    |                                  |
| Blackstone Real Estate Partners VI                            | 1,113,328   | 1,113,328    |                                  |
| Bridgepoint Europe III A, LP                                  | 152,343     | 152,343      |                                  |
| Bridgepoint Europe IV B, LP                                   | 673,250     | 673,250      |                                  |
| Campbell Timber Fund II-A, LP                                 | 492,376     | 492,376      |                                  |
| CarVal Investors CVI Global Value Fund A, LP - real estate    | 878,749     | 878,749      |                                  |
| CarVal Investors CVI Global Value Fund A, LP - private debt   | 878,749     | 878,749      |                                  |
| Catterton Partners V, LP                                      | 1,266,745   | 246,500      | 1,020,245                        |
| Catterton Partners VI, LP                                     | 479,942     | 479,942      |                                  |
| DDJ Capital Management - B IV Capital Partners, LP            | (1,092,567) | (1,213,558)  | 120,991                          |
| DRI Capital - LSRC  | 341,806     | 316,868      | 24,938                           |
| DRI Capital - LSRC II   | 43,557      | 43,557       |                                  |
| Garnet Sky Investors Company, Ltd.                            | 543,841     | 521,587      | 22,254                           |
| Global Forest Partners GTI7 Institutional Investors Co., Ltd. | 566,187     | 566,187      |                                  |

|   | Total Fees    | Manager Fees  | Paid/Accrued<br>Performance Fees |
|---|---------------|---------------|----------------------------------|
| Harvest Fund Advisors, LLC                              | 336,865       | 336,865       |                                  |
| JLL Partners Fund V, LP                                 | 838,164       | 317,013       | 521,151                          |
| JLL Partners Fund VI, LP                                | 2,441,372     | 761,486       | 1,679,886                        |
| Merit Energy Partners F-II, LP                          | 90,248        | 90,248        |                                  |
| MHR Institutional Partners IIA, LP                      | (637,446)     | 407,659       | (1,045,105)                      |
| MHR Institutional Partners III, LP                      | 1,176,810     | 1,176,810     |                                  |
| New Mountain Partners III, LP                           | 710,373       | 710,373       |                                  |
| NISA Investment Advisors                                | 740,825       | 372,947       | 367,878                          |
| OCM/GFI Power Opportunities Fund II, LP                 | 735,245       | 209,584       | 525,661                          |
| OCM Opportunities Fund IVB, LP                          | (98,835)      | 5,660         | (104,495)                        |
| OCM Opportunities Fund VIIIB, LP                        | 7,691,610     | 1,138,996     | 6,552,614                        |
| OCM Real Estate Opportunities Fund III, LP              | 690,635       | 153,507       | 537,128                          |
| Parish Capital Buyout Fund I, LP                        | 404,713       | 404,713       |                                  |
| Parish Capital Buyout Fund II, LP                       | 387,494       | 387,494       |                                  |
| Parish Opportunities Fund II, LP                        | 187,500       | 187,500       |                                  |
| Resource Management Service - Wildwood Timberlands, LLC | 5,259,239     | 723,152       | 4,536,087                        |
| Silver Lake Partners II, LP                             | 1,156,510     | (6,728)       | 1,163,238                        |
| TCW Energy Partners, LLC                                | 1,391,650     | 1,471,175     | (79,525)                         |
| TCW Energy Fund XIV, LP                                 | 1,132,191     | 515,188       | 617,003                          |
| The Veritas Capital Fund III, LP                        | 2,043,417     | 215,753       | 1,827,664                        |
| Total alternative investment managers                   | 39,418,231    | 19,622,531    | 19,795,700                       |
| <b>Alpha pool managers</b>                              |               |               |                                  |
| AQR Absolute Return Institutional Fund, LP              | 1,171,685     | 1,171,685     |                                  |
| AQR DELTA Sapphire Fund, LP                             | 817,752       | 817,752       |                                  |
| Barclays Global Investors Global Market Neutral Fund    | (205,200)     | (205,200)     |                                  |
| Blackstone Distressed Securities Fund, LP               | 33,879        | 33,879        |                                  |
| Blackstone Topaz Fund, LP                               | 2,112,852     | 2,112,852     |                                  |
| Brevan Howard, LP                                       | 746,061       | 503,771       | 242,290                          |
| Bridgewater Associates - Diamond Ridge Fund, LLC        | 2,799,408     | 2,799,408     |                                  |
| Davidson Kempner Institutional Partners, LP             | 3,219,936     | 691,576       | 2,528,360                        |
| Diamondback Partners, LP                                | 250,000       | 250,000       |                                  |
| Elliott International, Ltd.                             | 192,305       | 192,305       |                                  |
| Eton Park Fund, LP                                      | 1,508,241     | 810,248       | 697,993                          |
| Farallon Capital Institutional Partners, LP             | 2,195,799     | 508,202       | 1,687,597                        |
| HBK Offshore Fund, Ltd.                                 | 977,343       | 606,570       | 370,773                          |
| Highside Offshore, Ltd.                                 | 206,896       | 206,896       |                                  |
| King Street Capital, Ltd.                               | 2,005,075     | 1,190,972     | 814,102                          |
| PAAMCO - Newport Pioneer, LLC                           | 973,668       | 1,156,259     | (182,591)                        |
| Silver Point Capital Fund, LP                           | 460,021       | 460,021       |                                  |
| Total alpha pool managers                               | 19,465,721    | 13,307,197    | 6,158,524                        |
| <b>Other managers</b>                                   |               |               |                                  |
| NISA Investment Advisors                                | 1,284,879     | 1,284,879     |                                  |
| MOSERS Inc.   | 63            | 63            |                                  |
| Total other managers                                    | 1,284,942     | 1,284,942     |                                  |
| Grand totals  | \$ 84,160,905 | \$ 51,925,825 | \$ 32,235,080                    |

# SCHEDULE OF INVESTMENT PORTFOLIOS BY ASSET CLASS

## AS OF JUNE 30, 2010

|  | Fair Value              | Percentage of<br>Investments at Fair Value |
|--|-------------------------|--|
| <b>Public global equity</b>                                  | \$ 3,191,788,951        | 46.9%                                      |
| <b>Public debt</b>   |                         |  |
| Core fixed income  | 451,636,777             | 6.7  |
| High yield bonds   | 464,727,540             | 6.9  |
| TIPS   | 676,438,564             | 10.0                                       |
| Market neutral   | 269,812,766             | 3.7  |
| Total public debt  | 1,862,615,647           | 27.3                                       |
| <b>Alternative investments</b>                               |                         |  |
| Real assets  | 1,072,154,221           | 15.8                                       |
| Private investments  | 669,135,543             | 9.8  |
| Total alternative investments                                | 1,741,289,764           | 25.6                                       |
| <b>Other portfolios</b>                                      |                         |  |
| Other investments  | (8,101,763)             | (0.1)                                      |
| Cash reserve   | 18,261,253              | 0.3  |
| Total other  | 10,159,490              | 0.2  |
| <b>Grand total</b>   | <b>\$ 6,805,853,852</b> | <b>100.0%</b>                              |
| <b>Reconciliation to <i>Statement of Plan Net Assets</i></b> |                         |  |
| Total portfolio value  | \$ 6,805,853,852        |  |
| STIF   | (606,500,028)           |  |
| Uninvested cash  | (34,271,330)            |  |
| Interest and dividend receivable                             | 23,634,137              |  |
| Variation margin   | 1,761,740               |  |
| Foreign currency fluctuation                                 | 70,923                  |  |
| AR securities sold   | (34,335,655)            |  |
| AP securities purchased                                      | 23,438,533              |  |
| Incentive fees payable                                       | 11,366,443              |  |
| Securities lending liability                                 | 8,273,526               |  |
| Investments per <i>Statement of Plan Assets</i>              | <u>\$ 6,199,292,141</u> |  |

\* Cash reserve is not reflected as an individual asset class; therefore, minor rounding differences exist between the percentages reported in this schedule and other information contained in this section.

## PUBLIC EQUITY ASSET CLASS SUMMARY

*As of June 30, 2010, the public equity portfolio had a market value of \$3.2 billion, representing 46.9% of the total fund. Performance for the fiscal year was 14.3%, net of fees and expenses.*

### Highlights

There were some strategic changes in the make-up of the traditional equity portion of the portfolio, one new manager was hired and some allocations were altered. Here are the highlights:

- In the first quarter of 2010, all of the opportunistic credit investments which were allocated to public equity initially in 2008, were moved to the public debt high yield allocation with the exception of the master limited partnership investment which was moved to the alternative investments real assets allocation. As credit spreads tightened during the year, these investments were no longer expected to generate equity-like returns therefore they were moved to other parts of the portfolio.
- Increases were made to hedge equity managers as opportunities presented themselves to invest alongside some of the highest alpha producing managers in the long/short area.
- The Japanese overweight was decreased throughout the year as the valuation gap between European and Japanese equities diminished.

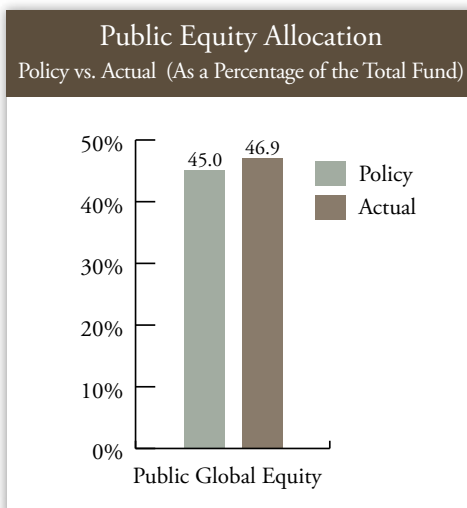
An overweight to the largest domestic equities by market capitalization was implemented due to our belief that these companies represented a good value proposition and should generate strong relative returns for the portfolio over time.

### Portfolio Structure

The public equity portfolio has a target allocation of 45% of the total fund. This portfolio is benchmarked against the MSCI ACWI index. As of June 30, 2010, the portfolio includes domestic equity, international developed equity, and emerging markets equity. As part of the implementation plan, hedged equity managers are utilized as a risk reducing tool. The bar chart to the right illustrates the actual allocation relative to the board's policy benchmark for public equity. Differences reflect the CIO's strategic decisions to overweight or underweight as of June 30, 2010.

The addition of credit opportunities in FY08 did not change the total policy allocation to public equity and, although these strategies were largely comprised of debt instruments, the investments were judged against the global equity benchmark. This allocation was looked at as a strategic move out of equity and into an area that was believed to offer equity-like returns with substantially less risk.

As of June 30, 2010, these credit opportunities have been moved out of the public equity allocation as going forward return expectations no longer meet the criteria when measured against an equity benchmark.



### Market Overview

The MSCI All Country World Net Index returned 11.8% for the fiscal year. The strong performance was lead by emerging markets. The first half of the FY10 saw the equity markets return 23.3% as the strong rebound from the global financial crisis drove the markets. The second half of the FY10 actually produced a return of -4.7% as fears of a double dip recession, government debt at unsustainable levels and a housing market yet to recover pressured the markets. At year-end, markets were volatile as each piece of information released seemed to conflict with the previous. Governments around the world were faced with the desire to increase spending to stimulate the economy while, at the same time, realizing a need to reduce debt for the long-term good of the economy.

The U.S. markets were up 13.6% for the year. Industrials and consumer discretionary stocks led the way with returns of 25.6% and 28.1%, respectively. The financials sector was next with a return of 16.3%. Many of the stocks that were beaten down in 2008 and early 2009 produced strong returns after having been priced as if they would not survive. The energy sector return of 0.6% was the lowest in the U.S.

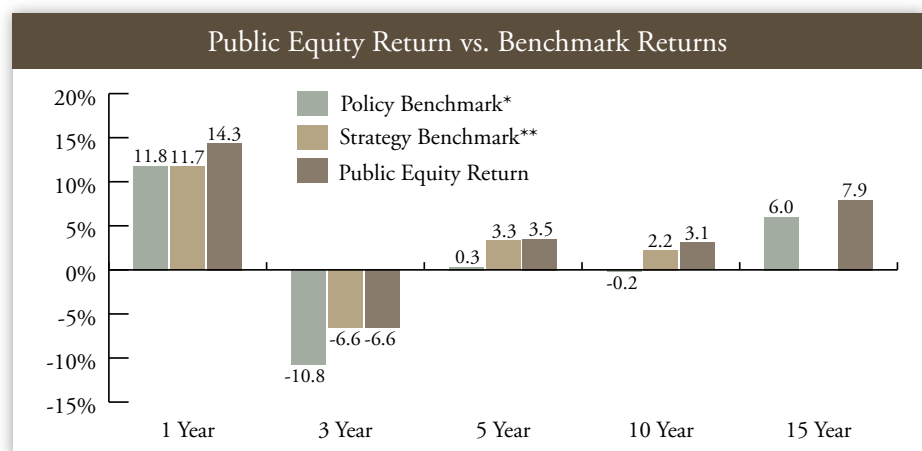
Looking to the future, it is difficult to find much agreement on the markets. Some argue that trouble lies ahead. Stimulus spending has failed to kick start the economy and high debt levels for the government and individuals signal continued weakness ahead. Others review strong corporate balance sheets and predict increasing growth and a recovery in the markets. Only time will tell which group is right.

### Performance

The public equity portfolio returned 14.3% for the fiscal year, exceeding the policy benchmark return of 11.8%, and strategy benchmark return of 11.7%, as illustrated in the bar chart above right.

The outperformance of the equity portfolio was driven by the U.S. and developed international portfolios, while the emerging markets portfolio underperformed its benchmark as the lower beta of that portfolio hurt performance in the strong up year.

The positive performance of the actual portfolio relative to the policy benchmark shows value added by staff and the external asset consultant



\* As of 6/30/10, the public equity policy benchmark was comprised of 100% MSCI All Country World Index.

\*\* As of 6/30/10, the public equity strategy benchmark was comprised of the following components: 52.3% domestic consisting of S&P 500, S&P 400, S&P 100, MSCI U.S. Net, and hedge equity strategy benchmark; 35.4% international developed consisting of MSCI World Ex U.S. Net and TOPIX USD Index; 12.3% emerging markets consisting of MSCI EMF Net. A strategy benchmark for the 15-year period is not available.

through strategic decisions and manager selection decisions. The strategy benchmark is compared to the policy benchmark to capture the value added by strategic allocation decisions.

In FY10, our strategic decision to overweight U.S. stocks relative to developed international was offset by our overweight to Japanese equities during the year. While steps were taken to reduce the overweight to Japanese equities early in the fiscal year, a small overweight was maintained through most of the year. By year-end, the Japanese equity overweight had almost been totally eliminated.

Within the U.S. equity portfolio we initiated an overweight position to mega-cap stocks, which by year-end had detracted from our relative performance. There are a growing number of market participants that have identified these stocks as relatively cheap, both when measured against themselves and against other parts of the market. We believe this

group of company's, broadly referred to as the "quality" trade represent a good value proposition, with strong dividend yields and globally diversified earnings. While the markets did not value these companies as such in FY10, we believe these companies should generate strong relative returns for the portfolio over time.

Manager selection decisions were broadly positive within the public equity portfolio as the portable alpha program generated significant value added for the portfolio along with strong performance from several of our traditional active managers.

### Top Ten Holdings

The top ten holdings within the public equity portfolio as of June 30, 2010, are shown at the top of the following page.

### Market Value

The equity allocation was \$3.2 billion, or 46.9% of the total fund as of June 30, 2010.

## Summary of Portfolio

MOSERS maintains a significant allocation to publicly traded shares of corporations around the world. Equity exposure is achieved through broadly diversified portfolios representing a variety of styles, sectors, market capitalizations, and an allocation to the beta/alpha program (see pages 99-100 for further details). Equity investments are made in the U.S., international developed, and emerging markets. The equity portfolio is expected to contribute significantly to the fund's achievement of a long-term real return in excess of the 5.3% objective set by the board.

It is expected that this portfolio will perform well in periods of falling inflation and rising growth and offer income potential through dividend payments.

## Statistical Performance

The table to the middle right displays the statistical performance data (net of fees) of the public equity portfolio as of June 30, 2010.

## Investment Advisors

As of June 30, 2010, MOSERS had contracts with 14 external investment advisors who manage 15 portfolios that comprise 63.6% of the equity portfolio. The remaining 36.4% of the portfolio is in the beta/alpha program described on pages 99-100.

In FY10, there was one manager hired and none terminated in the equity portfolio. Management expenses for these managers can be found on pages 76-77 under the total fund overview section of this report.

## Public Equity - Top Ten Holdings

| Ten Largest Holdings as of June 30, 2010 | Market Value | Percent of Total MOSERS Public Equity Portfolio |
|--|--------------|---|
| Occidental Petroleum Corp.               | \$ 5,351,355 | 0.17%   |
| General Electric Co.                     | 4,373,759    | 0.14  |
| Cenovus Energy Inc.                      | 4,283,719    | 0.13  |
| Comcast Corp.                            | 4,155,147    | 0.13  |
| Cigna Corp.                              | 3,970,990    | 0.12  |
| Amgen Inc.                               | 3,845,060    | 0.12  |
| Best Buy Co. Inc.                        | 3,840,774    | 0.12  |
| Mead Johnson Nutrition Co.               | 3,806,113    | 0.12  |
| Sony Corp.                               | 3,762,787    | 0.12  |
| Teva Pharmaceutical Industries           | 3,751,079    | 0.12  |

## Public Equity - Statistical Performance

| Portfolio Characteristics     | 1 Year | 3 Year | 5 Year | 10 Year |
|-------------------------------|--------|--------|--------|---------|
| Annualized return             | 14.3%  | (6.5)% | 3.5%   | 3.1%    |
| Annualized standard deviation | 14.16% | 18.49% | 15.41% | 15.38%  |
| Sharpe ratio                  | 1.00   | (0.45) | 0.04   | 0.02    |
| Excess return*                | 2.5%   | 4.2%   | 3.2%   | 3.3%    |
| Beta*                         | 0.80   | 0.78   | 0.80   | 0.87    |
| Annualized alpha*             | 4.24%  | 1.62%  | 2.97%  | 3.13%   |
| Correlation*                  | 0.99   | 0.99   | 0.98   | 0.98    |

\* As compared to the total equity policy

## Public Equity - Investment Advisors

| Investment Advisors                | Style                          | Portfolio Market Value  |
|------------------------------------|--------------------------------|-------------------------|
| Baillie Gifford Overseas, Ltd.     | Active growth int'l developed  | \$ 96,254,943           |
| Beta/alpha program int'l equity    | Active                         | 292,276,789             |
| Beta/alpha program U.S. equity     | Active                         | 869,085,747             |
| Blackstone Alternative Asset Mgt.  | Hedged equity                  | 213,201,711             |
| Blakeney Management                | Active value frontier markets  | 127,094,802             |
| DG Capital                         | Active all-cap growth          | 121,188,661             |
| Eminence Capital                   | Hedged equity                  | 46,350,743              |
| GMO, LLC                           | Active growth emerging markets | 133,326,570             |
| Legg Mason Opportunity Trust       | Active all-cap value           | 81,940,904              |
| Legg Mason Value Trust             | Active all-cap value           | 43,108,010              |
| Leuthold Weeden                    | Active all-cap sectors         | 112,746,048             |
| Mastholm Asset Management          | Active growth                  | 92,092,237              |
| Morant Wright Management Ltd.      | Active Japan                   | 95,393,692              |
| Nippon Value Investors             | Active Japan                   | 92,912,558              |
| NISA emerging markets              | Index                          | 174,593,532             |
| NISA international long/short      | Hedged equity                  | 8,008,891               |
| Silchester International Investors | Active value int'l developed   | 488,226,623             |
| TPG Axon Capital                   | Hedged equity                  | 43,650,337              |
| Viking Global Investors            | Hedged equity                  | 60,209,719              |
| Miscellaneous Emerging Markets     | Index                          | 126,434                 |
| Total                              |                                | <u>\$ 3,191,788,951</u> |



## Brokerage Activity

The following table illustrates the brokerage activity that occurred within the equity portfolio throughout the fiscal year. Brokerage activity for the credit opportunities investments that were moved to the public debt high yield and alternative investments real assets allocations are included in the high yield and real assets brokerage activity, respectively.

### Public Equity - Brokerage Activity

| Brokerage Firm  | Shares Traded | Dollar Volume of Trades | Commissions   |                 |
|---|---------------|-------------------------|---------------|-----------------|
|   |               |                         | Dollar Amount | Value Per Share |
| Calyon Securities (Setclear), New York                | 23,868,583    | \$ 112,751,588          | \$ 79,255     | \$0.00          |
| Credit Suisse   | 13,855,079    | 122,684,427             | 201,712       | 0.01            |
| Nomura Securities Int'l Inc., New York                | 12,601,915    | 35,688,111              | 71,493        | 0.01            |
| Weeden & Company, New York                            | 11,049,456    | 200,870,453             | 221,288       | 0.02            |
| Merrill Lynch   | 10,468,497    | 122,281,502             | 296,300       | 0.02            |
| Cowen and Company, LLC, New York                      | 4,881,536     | 137,591,431             | 97,855        | 0.02            |
| Morgan Stanley & Co. Inc., New York                   | 4,523,787     | 76,447,029              | 66,162        | 0.01            |
| Union Bank Switzerland Securities, London             | 4,033,835     | 110,145,719             | 63,460        | 0.02            |
| Goldman Sachs Execution & Clearing, New York          | 3,955,678     | 98,048,202              | 84,078        | 0.02            |
| J.P. Morgan Securities Ltd.                           | 3,788,891     | 91,282,600              | 123,369       | 0.03            |
| Fidelity Capital Markets (Div of NFSC), Boston        | 3,047,830     | 62,889,590              | 60,905        | 0.02            |
| Pershing LLC, Jersey City                             | 1,691,416     | 41,791,154              | 46,116        | 0.03            |
| SG Securities (London) Ltd., London                   | 1,603,300     | 29,066,407              | 55,719        | 0.03            |
| Credit Agricole USA, New York                         | 1,517,800     | 23,036,953              | 41,578        | 0.03            |
| Mitsubishi UFJ Securities (USA), New York             | 1,505,700     | 28,826,011              | 43,246        | 0.03            |
| Mainfirst Bank AG, Frankfurt                          | 367,400       | 22,311,707              | 44,601        | 0.12            |
| Others (includes 138, each contributing less than 1%) | 61,635,560    | 1,078,676,727           | 773,520       | 0.01            |
| Total   | 164,396,263   | \$ 2,394,389,611        | \$ 2,270,657  | 0.01            |

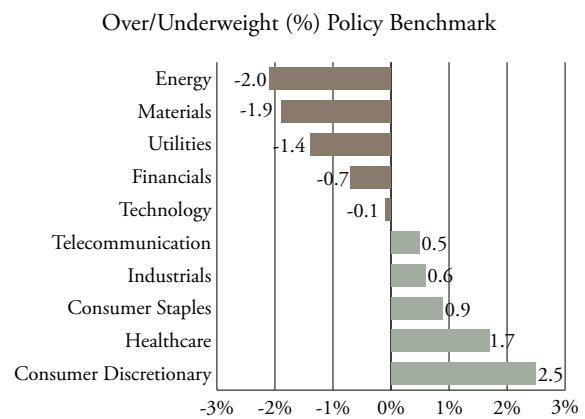
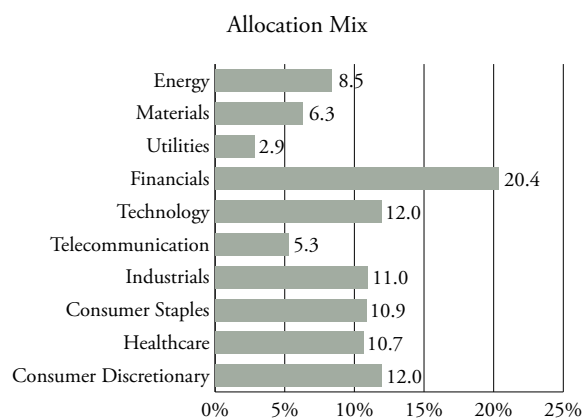
## Soft Dollar Expenditures

In the fiscal year ended June 30, 2010, MOSERS' equity managers declared \$87,903 of the commissions generated were utilized to acquire a variety of services and research information. These expenditures, referred to as soft dollars (expendable excess commissions), are permitted under current Securities Exchange Commission (SEC) guidelines and represent less than 4% of MOSERS' agency commissions.

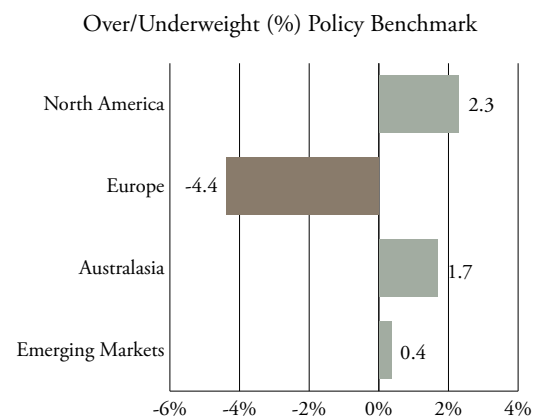
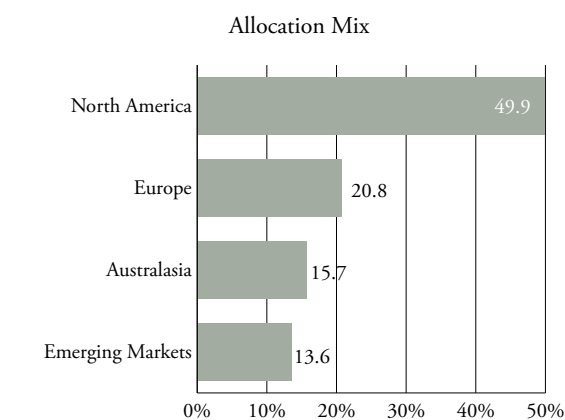
### Public Equity - Soft Dollar Expenditures

| Types of Services Acquired | Commissions Used | Percentage of Total |
|----------------------------|------------------|---------------------|
| Consulting/benchmarks      | \$ 2,378         | 2.7%                |
| Research services          | 81,092           | 92.3                |
| Trading/analytic systems   | 284              | 0.3                 |
| Market research            | 4,149            | 4.7                 |
| Total                      | \$ 87,903        | 100.0%              |

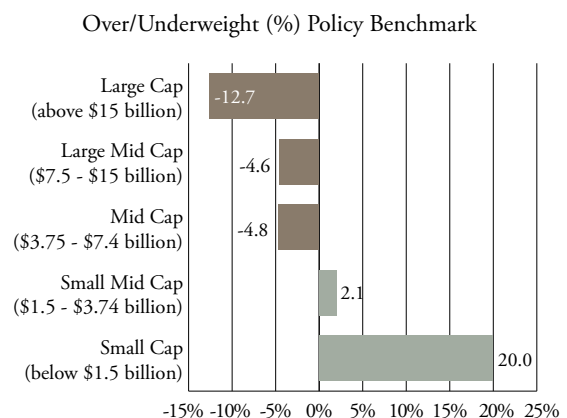
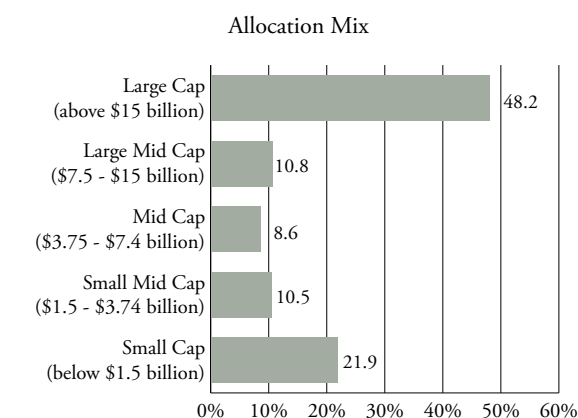
## Public Equity by Sector



## Public Equity by Region



## Public Equity by Market Cap



## PUBLIC DEBT ASSET CLASS SUMMARY

*As of June 30, 2010, the public debt allocation had a market value of \$1.9 billion, representing 27.3% of the total fund. Performance for the fiscal year was 14.8%, net of fees and expenses.*

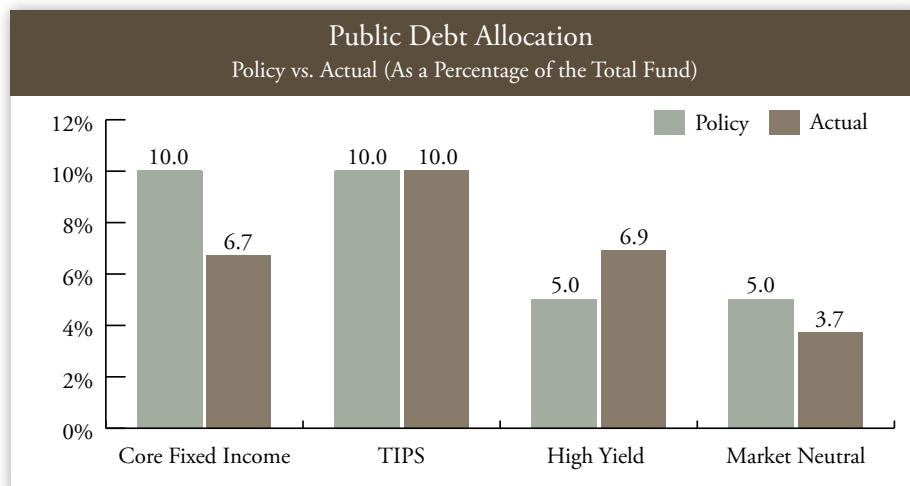
### Highlights

There were some modest tactical changes made to the public debt portfolio during the fiscal year. Here are a few of the highlights:

- The substantial overweight to treasuries that was initiated in 2007 was maintained, with the offsetting underweight coming primarily from investment grade corporate securities and government guaranteed mortgages.
- Within high yield, the hedge implemented in 2007 on a significant portion of the portfolio to protect against credit deterioration was removed as spreads tightened during the year and perceived default risk diminished substantially.
- The credit opportunities portfolio that resided within the equity allocation was moved to the high yield allocation in the first quarter of 2010. This resulted in the high yield allocation moving from policy weight to nearly a double weight. Through asset sales and prepayments of securities, the overweight was reduced in half by fiscal year-end.

### Portfolio Structure

The public debt portfolio has a target allocation of 30% of the total fund. This portfolio is comprised of four



sub-asset classes which include core fixed income, high yield bonds, Treasury Inflation Protected Securities (TIPS) and market neutral. The bar chart above illustrates the actual sub-asset allocations relative to the board's policy allocation for each of these sub-asset classes. Differences reflect the CIO's strategic decisions to overweight or underweight sub-asset classes as of June 30, 2010.

### Market Overview

A recovery in the financial markets and economic activity that began near the end of FY09 continued throughout FY10. As of June 30, 2009, the federal funds rate was 0% to 0.25% and the Federal Reserve Board (Fed) stated that the economic contraction was slowing but remained concerned about the downside risk to growth. The Fed gradually changed its stance as the economy started recovering and began removing monetary stimulus in the first half of 2010. The Fed has maintained the discount rate in a range from 0% to 0.25% since December 2008. At the June 2010 meeting, the Fed

noted that the economic recovery was proceeding but there continued to be concern about downside risks.

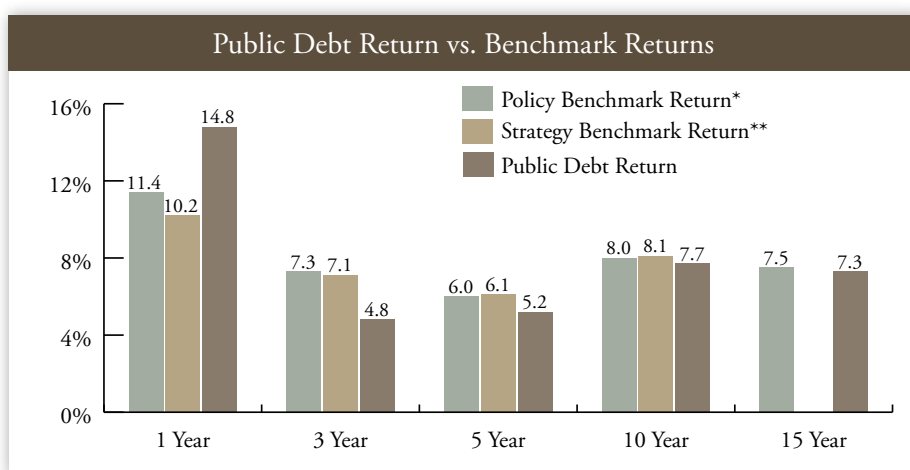
Long treasury rates continued to exhibit a higher level of volatility that began in FY09. Rates started FY10 at 4.33% and ended at 3.89%, with yields ranging from 3.89% to 4.84%. Short-term rates remained low as the Fed maintained the federal funds rate constant, and market participants continued to show a strong interest in the short-end seeking liquidity and safety. The yield curve flattened slightly; however, it continued to be historically steep.

On the economic front, the declines in all areas of the housing market that began in FY07 started to modestly improve in FY10. The housing market was helped by low mortgage rates and home buyer tax credits. Foreclosures and a large "shadow" inventory continue to overhang the housing market and may put additional pressure on housing prices. GDP was contracting at an approximate 4% year-over-year rate to start the fiscal year and had improved to a

positive 3.2% rate by the end of FY10. Year-over-year CPI began FY10 at -1.4% and increased to 1.1% by year-end. The U.S. and other world governments began withdrawing fiscal and monetary stimulus and, as a result, by the end of FY10, many of the economic indicators had stopped improving or have even reversed their positive trends.

The broad debt market as represented by the Barclays Capital Aggregate Index experienced a return of 9.5% while the treasury market returned 6.7% for FY10. The investment grade corporate market gained 15.9% while the high yield market had a return of 26.8%. Investment grade and high yield spreads contracted sharply. Investment grade spreads narrowed 119 basis points and high yield spreads narrowed 281 basis points.

Overall, the general theme for FY10 was financial markets recovering from the turmoil experienced in FY09. World government intervention through monetary and fiscal stimulus helped improve the global economy. The Fed is positioned to keep interest rates at current levels for “an extended period of time” with a goal to carefully monitor economic and market activity for changes in the event of a need to modify the quantitative easing policy either in the direction of further ease (economy that is unresponsive to stimulus) or tightening and ultimately complete removal of easing measures (economy normalizes and inflation becomes a threat).



\* As of 6/30/10, the public debt policy benchmark was comprised of the following components: 33.3% Barclays Aggregate, 33.3% Barclays U.S. TIPS, 16.7% Barclays High Yield, and 16.7% T-Bills + 4%.

\*\* As of 6/30/10, the public debt strategy benchmark was comprised of the following components: 22.7% core bond consisting of actual return of beta fixed income; 34.3% Barclays U.S. TIPS; 29.2% high yield consisting of Barclays High Yield, CSFB Leverage Loan Index, and actual return of Bayview; and 13.8% T-Bills + 4%. A strategy benchmark for the 15-year period is not available.

### Public Debt - Top Ten Holdings

| Ten Largest Holdings<br>as of June 30, 2010       | Market<br>Value | Percent of<br>Total MOSERS<br>Public Debt<br>Portfolio |
|---|-----------------|--|
| U.S. Treasury Inflation Index Note - 2.625%, 2017 | \$ 134,777,472  | 7.2%   |
| U.S. Treasury Inflation Index Note - 2.000%, 2014 | 132,881,697     | 7.1  |
| U.S. Treasury Inflation Index Bond - 2.375%, 2025 | 95,282,516      | 5.1  |
| U.S. Treasury Inflation Index Note - 3.375%, 2017 | 71,847,365      | 3.9  |
| U.S. Treasury Inflation Index Note - 3.000%, 2012 | 56,443,989      | 3.0  |
| U.S. Treasury Inflation Index Bond - 2.375%, 2027 | 50,839,963      | 2.7  |
| U.S. Treasury Inflation Index Bond - 2.000%, 2026 | 46,022,151      | 2.5  |
| U.S. Treasury Inflation Index Note - 0.500%, 2015 | 43,652,682      | 2.3  |
| U.S. Treasury Inflation Index Bond - 1.750%, 2028 | 25,031,432      | 1.3  |
| U.S. Treasury Inflation Index Bond - 2.125%, 2040 | 13,235,807      | 0.7  |

### Performance

The public debt portfolio returned 14.8% for the fiscal year, significantly outperforming the policy benchmark return of 11.4% and the strategy benchmark return of 10.2%. During the fiscal year, the outperformance to the policy benchmark was attributable to the implementations primarily within core fixed income and secondarily within market neutral. The portfolio is currently positioned with less interest rate risk than is the policy

benchmark, a factor that may enable better long-term performance relative to the benchmark as interest rates are at historical lows and likely will rise in the event of continued economic recovery. The bar chart at the top of the page illustrates performance over longer periods of time.

### Top Ten Holdings

The top ten holdings within the public debt portfolio as of June 30, 2010, are illustrated in the table above.

## CORE FIXED INCOME

### Market Value

The core fixed income allocation was \$451.6 million as of June 30, 2010, or 6.7% of the total fund and below its policy target of 10%.

### Summary of Portfolio

The core fixed income sub-asset class gives the total fund exposure to high quality fixed income instruments which, in turn, provides stable cash flows and excellent liquidity to the portfolio. Types of fixed income securities that may be held within this portfolio include U.S. Treasuries, mortgage-backed securities, asset-backed securities, agency securities and investment-grade corporate bonds. Core fixed income is also the one segment within public debt that can be efficiently implemented synthetically due to the wide availability of treasury futures and swaps and their acceptance as mainstream instruments of portfolio management. Synthetic implementation of core exposure has been widely used since the addition of the beta/alpha program in FY05. Beta/alpha within the core segment is expected to be an efficient means of achieving superior risk adjusted returns over an entire economic cycle. Please refer to the section on beta/alpha on pages 99-100 for a more complete description of the program and its rationale. The fixed income asset class provides meaningful diversification to the portfolio in a variety of different economic scenarios. Core fixed income performs well, but would typically lag equities, in periods of good economic growth

### Core Fixed Income - Statistical Performance

| Portfolio Characteristics     | 1 Year | 3 Year  | 5 Year  | 10 Year |
|-------------------------------|--------|---------|---------|---------|
| Annualized return             | 19.3%  | 7.1%    | 6.2%    | 6.6%    |
| Annualized standard deviation | 4.91%  | 6.70%   | 5.41%   | 4.75%   |
| Sharpe ratio                  | 3.90   | 0.80    | 0.60    | 0.80    |
| Excess return*                | 9.8%   | (0.5)%  | .7%     | 0.1%    |
| Beta*                         | 1.44   | 1.32    | 1.18    | 1.09    |
| Annualized alpha*             | 4.68%  | (2.68)% | (0.27)% | (0.49)% |
| Correlation*                  | 0.91   | 0.81    | 0.81    | 0.86    |

\* As compared to the Barclays Capital Aggregate Bond Index.

### Core Fixed Income - Investment Advisors

| Investment Advisor | Style  | Portfolio Market Value |
|--------------------|--------|------------------------|
| Beta/alpha program | Active | \$ 451,636,777         |

and falling inflation. One should also expect adequate performance from the core portfolio in periods of falling growth and stable inflation.

### Statistical Performance

The table above displays statistical performance data (net of fees) for the core fixed income portfolio as of June 30, 2010.

### Investment Advisors

As of June 30, 2010, MOSERS did not have any contracts with external investment advisors for the management of separate fixed income portfolios; however, the core segment participates in the beta/alpha program. In the program, beta and alpha are completely separated such that the beta exposure is gained through synthetic replication of the core components and the alpha is gained through the alpha pool managers.

The table above displays the investment advisor that was under contract with MOSERS for FY10 for the management of core fixed income portfolios. Information regarding management fees paid to this manager may be found on pages 76-77 of this report.

### Brokerage Activity

In FY10, MOSERS did not generate any core fixed income brokerage through the purchase and sale of core fixed income assets.

## HIGH YIELD BONDS

### Market Value

The high yield bond allocation was \$464.7 million as of June 30, 2010, or 6.9% of the total fund.

### Summary of Portfolio

The high yield bond portfolio invests in debt securities whose credit ratings are below investment grade quality. Relative to the core fixed income portfolio, this sub-asset class provides superior coupon cash flow, as well as some diversification benefit due to a reduced sensitivity to changes in interest rates. MOSERS views this allocation as one that is likely to be variable and very much dependent upon the particular stage of the economic cycle being experienced at the time of the allocation decision. As of June 30, 2010, MOSERS was over the 5% policy target allocation to high yield bonds.

### Statistical Performance

The table at the top of the page displays the statistical performance data (net of fees) for the high yield bond portfolio as of June 30, 2010.

### Investment Advisors

As of June 30, 2010, MOSERS had contracts with five external investment advisors for the management of the high yield bond portfolio. Information related to these advisors is included in the middle table to the right. For information on management fees paid, consult the table on pages 76-77 of this report.

### Brokerage Activity

In FY10, MOSERS generated high yield bond brokerage activity, as shown in the bottom table to the right.

### High Yield Bonds - Statistical Performance

| Portfolio Characteristics     | 1 Year | 3 Year  | 5 Year  | Since Inception<br>(Oct. 2001) |
|-------------------------------|--------|---------|---------|--------------------------------|
| Annualized return             | 22.0%  | (0.9)%  | 3.2%    | 7.2%                           |
| Annualized standard deviation | 5.80%  | 14.12%  | 11.06%  | 9.20%                          |
| Sharpe ratio                  | 3.78   | (0.19)  | 0.03    | 0.52                           |
| Excess return*                | (4.7)% | (7.3)%  | (3.9)%  | (1.8)%                         |
| Beta*                         | 0.63   | 0.68    | 0.68    | 0.68                           |
| Annualized alpha*             | 4.83%  | (5.20)% | (1.52)% | 1.07%                          |
| Correlation*                  | 0.96   | 0.84    | 0.84    | 0.85                           |

\* As compared to the Barclays Capital High Yield Bond Index

### High Yield Bonds - Investment Advisors

| Investment Advisors                  | Style  | Portfolio<br>Market Value |
|--------------------------------------|--|---------------------------|
| Bayview Asset Management, LLC        | Opportunistic mortgages                              | \$ 86,316,494             |
| BlackRock Financial Management, Inc. | Active high yield bonds,<br>loans and non-agency MBS | 312,886,597               |
| Fortress Investment Group, LLC       | Opportunistic mortgages                              | 27,177,733                |
| NISA Investment Advisors, LLC        | Euro hedge   | (656,725)                 |
| OCM Capital Management, LLC          | Opportunistic European loans                         | 39,003,441                |
| Total                                |  | <u>\$ 464,727,540</u>     |

### High Yield Bonds - Brokerage Activity

| Broker/Dealer Firm                                     | Par Amount<br>Traded    | Market Value<br>Traded | Percent of<br>Total Trading<br>Volume by<br>Market Value |
|--|-------------------------|------------------------|--|
| Citigroup  | \$ 218,299,986          | \$276,852,375          | 27.2%  |
| JP Morgan  | 122,001,593             | 111,741,436            | 11.0   |
| Deutsche Bank  | 103,448,706             | 103,114,520            | 10.1   |
| Credit Suisse  | 100,666,832             | 86,603,599             | 8.5  |
| Bank of America  | 71,852,442              | 69,457,183             | 6.8  |
| Barclays   | 72,502,767              | 67,517,485             | 6.6  |
| Morgan Stanley   | 68,608,349              | 67,175,566             | 6.6  |
| RBS  | 38,647,024              | 37,650,701             | 3.7  |
| Goldman Sachs  | 43,364,902              | 36,294,027             | 3.6  |
| BNP Paribas  | 36,680,946              | 30,601,837             | 3.0  |
| Wells Fargo  | 26,757,629              | 27,130,829             | 2.7  |
| UBS  | 17,067,184              | 17,078,605             | 1.7  |
| Jefferies  | 12,396,000              | 12,214,496             | 1.2  |
| Other (Includes 36, each<br>contributing less than 1%) | 96,384,938              | 75,160,369             | 7.3  |
| Totals   | <u>\$ 1,028,679,298</u> | <u>\$1,018,593,028</u> | <u>100.0%</u>  |



## TREASURY INFLATION PROTECTED SECURITIES (TIPS)

### Market Value

The TIPS allocation was \$676.4 million or 10.0% of the total fund as of June 30, 2010.

### Summary of Portfolio

TIPS are fixed income securities issued and guaranteed by the U.S. government. The yield on these securities is specifically tied to inflation, as measured by the U.S. consumer price index, plus a predetermined yield above and beyond inflation. The TIPS allocation provides an excellent match relative to the system's liabilities in terms of its ability to provide inflation protection. As of June 30, 2010, MOSERS' allocation was at the 10% policy target allocation to TIPS.

### Statistical Performance

The table at the top of the page displays the statistical performance data (net of fees) for the TIPS portfolio as of June 30, 2010.

### Investment Advisors

As of June 30, 2010, the TIPS portfolio was 100% internally managed. The middle table to the right summarizes the details.

### Brokerage Activity

In FY10, MOSERS generated TIPS brokerage activity through the purchase and sale of TIPS shown in the bottom table.

### TIPS - Statistical Performance

| Portfolio Characteristics     | 1 Year | 3 Year | 5 Year | 10 Year |
|-------------------------------|--------|--------|--------|---------|
| Annualized return             | 10.1%  | 8.0%   | 5.2%   | 8.8%    |
| Annualized standard deviation | 5.25%  | 8.95%  | 7.48%  | 8.68%   |
| Sharpe ratio                  | 1.89   | 0.70   | 0.30   | 0.69    |
| Excess returns*               | 0.6%   | 0.4%   | 0.2%   | 0.2%    |
| Beta*                         | 1.03   | 1.01   | 1.00   | 1.01    |
| Annualized alpha*             | 0.22%  | 0.29%  | 0.18%  | 0.12%   |
| Correlation*                  | 1.00   | 1.00   | 1.00   | 1.00    |

\* As compared to the Barclays Capital U.S. TIPS Bond Index

### TIPS - Investment Advisors

| Investment Advisors | Style   | Portfolio<br>Market Value |
|---------------------|---------|---------------------------|
| Internal staff      | Passive | \$676,438,564             |

### TIPS - Brokerage Activity

| Broker/Dealer Firm | Par Amount<br>Traded  | Market Value<br>Traded | Percent of<br>Total Trading<br>Volume by<br>Market Value |
|--------------------|-----------------------|------------------------|--|
| Credit Suisse      | \$ 118,400,000        | \$ 128,829,490         | 64.0%  |
| Citigroup          | 46,000,000            | 52,269,115             | 26.0   |
| Barclays           | 16,000,000            | 20,121,713             | 10.0   |
| Totals             | <u>\$ 180,400,000</u> | <u>\$ 201,220,318</u>  | <u>100.0%</u>  |

## MARKET NEUTRAL

### Market Value

As of June 30, 2010, the market neutral allocation was \$269.8 million, or 3.7% of the total fund.

### Summary of Portfolio

The market neutral portfolio consists of a variety of managers who utilize skill-based investment strategies, which allow them to take advantage of periodic inefficiencies that may exist within the market. The expectation for this sub-asset class is to produce consistent absolute returns in various economic environments. More directly, it is expected that this portfolio will generate returns of 4% in excess of returns on 90-day Treasury bills with similar volatility to what is expected from the core fixed income portfolio. Market neutral investments also provide diversification and downside protection to the portfolio. MOSERS utilizes its beta/alpha program described on pages 99-100 to gain exposure to this sub-asset class. This allows MOSERS to invest in an extremely diversified pool comprised of a variety of different types of strategies that provide additional risk protection and alpha that has minimal exposure to both the stock and the bond markets. As of June 30, 2010, MOSERS is 1.3% under the 5% policy target allocation to market neutral.

### Market Neutral - Statistical Performance

| Portfolio Characteristics     | 1 Year | 3 Year | 5 Year | Since Inception<br>(Dec. 2002) |
|-------------------------------|--------|--------|--------|--------------------------------|
| Annualized return             | 11.6%  | 0.8%   | 4.2%   | 4.7%                           |
| Annualized standard deviation | 3.21%  | 6.01%  | 4.93%  | 4.18%                          |
| Sharpe ratio                  | 3.55   | (0.16) | 0.25   | 0.53                           |
| Excess return*                | 7.4%   | (4.6)% | (2.4)% | (1.6)%                         |
| Beta to S&P 500               | 0.15   | 0.16   | 0.16   | 0.15                           |
| Beta to Barclays Aggregate    | 0.14   | 0.27   | 0.08   | 0.09                           |

\* As compared to T-bills + 4%

### Market Neutral - Investment Advisors

| Investment Advisors | Style          | Portfolio<br>Market Value |
|---------------------|----------------|---------------------------|
| Alpha program       | Market neutral | \$ 269,812,766            |

### Statistical Performance

The table above displays the statistical performance data (net of fees) for the market neutral portfolio as of June 30, 2010.

### Investment Advisors

MOSERS' market neutral exposure is captured through the 18 managers comprising the alpha program, which is detailed on pages 99-100. The second table summarizes MOSERS' market neutral investment within this pool as of June 30, 2010. Information on manager fees paid can be found on pages 76-77 of this report.

## ALTERNATIVE INVESTMENTS ASSET CLASS SUMMARY

*At the end of the 2010 fiscal year, the alternative investments portfolio had a market value of \$1.7 billion, representing 25.6% of the total fund. For the fiscal year the asset class returned 11.8%, net of fees and expenses.*

### Highlights

For the most part, the markets in which the alternative investments portfolio is involved were considerably more vibrant and active during FY10 compared to the previous fiscal year, a period when financial markets were under a great deal of stress. The fundraising environment for private investments, while improving, remains sluggish compared to the 2005-2008 period when a tremendous amount of capital was raised. During the year, there were a few additions to the private investments portfolio and a change in the real assets portfolio which should benefit the existing alternative investments portfolio in terms of enhanced returns, additional diversification, and a reduction in costs. Despite the slow environment characterized by managers not being able to raise their targeted amount of capital or having to extend the time needed to raise capital, MOSERS was able to identify a number of attractive strategies. The highlights for the year are listed below:

- MOSERS entered the intellectual property segment of the market by investing in the royalty streams of a number of individual drugs. Exposure to this area was obtained through two separate transactions. The first was made by purchasing the fund interests from another institutional investor. The second was through a direct commitment to a partnership with the objective of acquiring royalty streams. These

investments, both of which are managed by the same organization, possess many characteristics that are not typical of most private equity investments. These characteristics include current income, less sensitivity to the economic cycle, and significant barriers to entry due to the legal and pharmaceutical expertise involved in analyzing these instruments. Royalties have a risk-return risk profile that is substantially different from other private equity investments in the portfolio and are expected to produce attractive returns with much less volatility.

- Towards the end of the fiscal year, MOSERS made commitments to two new private equity managers. The first commitment provides the system with exposure to best-of-breed technology companies. This manager focuses on direct-secondary investments, which entails purchasing the interests of shareholders such as founders, employees and others who seek liquidity for their ownership stakes. By targeting companies well into their development cycle, the partnership seeks to generate compelling returns with much less risk than earlier investors. The second commitment was made to a partnership that focuses on investing in the health care and life sciences industry. This area is attractive given its size, breadth and growth characteristics. Both

of these opportunities should provide the system with attractive returns while offering a different risk profile that will help diversify the private equity portfolio.

- During the year, MOSERS made a commitment to a distressed debt partnership managed by a firm with extensive experience in this area. Over the next few years, distressed debt could offer an excellent risk-return proposition by purchasing debt and other securities at a significant discount to fair value. Importantly, these securities typically hold a superior claim on a company's assets which tend to provide protection on the downside.

As described above, MOSERS made several additions to the alternative investments portfolio during FY10. In total, these commitments/investments amounted to \$110 million. While the commitment pace has picked up compared to the previous fiscal year, staff remains aware of the necessity to manage the liquidity of the total fund. Going forward, the commitment pace will be determined after considering a number of factors. The staff and asset consultant will continue to build and maintain an alternative investments portfolio that meets the objective of the overall fund.

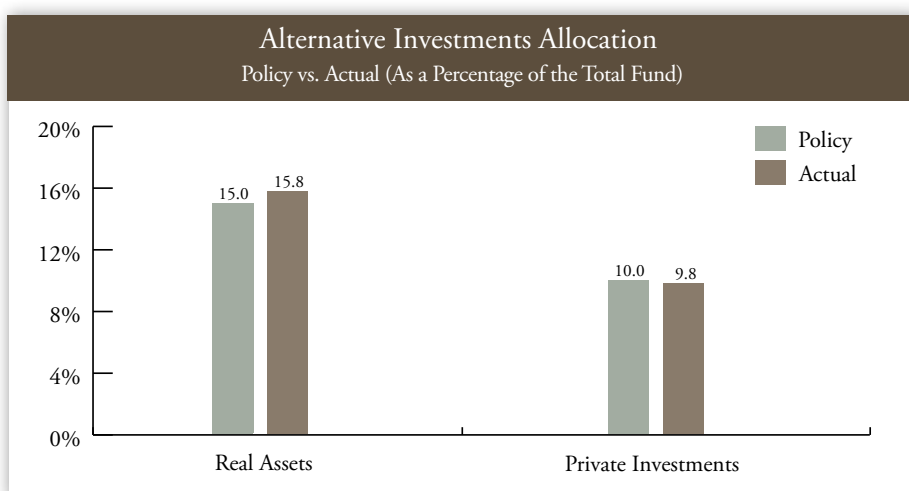
### Portfolio Structure

The target allocation for the alternative investments portfolio remains at 25% of the total fund. This allocation is further divided into

two sub-asset classes: real assets and private investments. The real asset target allocation is 15% of the total fund and is further divided into three components: commodities, timber and real estate. The private investments sub-asset class has a target allocation of 10% of the total fund and is divided into two areas: private equity and private debt. At the end of the fiscal year, alternative investments made up 25.6% of the total fund, slightly above its target. At the sub-asset class level, the private investments portfolio was slightly below its target, at 9.8%, and the real assets portfolio was above its target, at 15.8%. The bar chart to the above right illustrates the actual allocation of real assets and private investments relative to the board's policy allocation as of June 30, 2010. As described above, the alternative investments portfolio is made up of five distinct components which demonstrate a conscious effort to assemble a group of assets with varying risk-return characteristics that will provide diversification at the total fund level. The table above shows the five investment components and their correlation to each other.

### Market Overview

The alternative investments portfolio encompasses a number of markets some of which are liquid, where securities are publicly traded; and some that are illiquid, where activity takes place via private transactions. The following paragraphs briefly describe the markets for each of the five portfolio components and provide a perspective on how each performed during the fiscal year.



### Alternative Investments Correlations - 5 Year Period

| Sub-Asset Class | Real Estate | Commodities | Timber | Private Equity | Private Debt |
|-----------------|-------------|-------------|--------|----------------|--------------|
| Real estate     | 1.00        |             |        |                |              |
| Commodities     | 0.19        | 1.00        |        |                |              |
| Timber          | 0.01        | (0.06)      | 1.00   |                |              |
| Private equity  | 0.63        | 0.28        | 0.18   | 1.00           |              |
| Private debt    | 0.37        | 0.56        | (0.01) | 0.54           | 1.00         |

The commodities market represents a number of assets that can either be consumed, such as corn and wheat; or transformed into goods, such as oil, which can be processed into gasoline. Each commodity is characterized by their specific market dynamics and liquidity profile. The commodities market, as represented by the S&P GSCI (Standard & Poor's, Goldman Sachs Commodity Index), tracks 24 individual commodities within the energy, industrial metals, precious metals, agriculture and livestock sectors. Over the past year ending June 30, 2010, the index returned -5.4%. This negative return was due primarily to the energy component which makes up almost 70% of the index and returned -8.8% over this period. The agriculture component also contributed to the negative

performance by returning -10.7% for the year. Not all components produced a negative return. Both the industrial and precious metal components had a positive result returning 20.4% and 33.7%, respectively.

The real estate market is made up of a broad group of assets. Real estate can be differentiated by property type; such as office, industrial, retail, multi-family and hotel, as well as by whether it is publicly traded or privately held. The benchmark for MOSERS' real estate portfolio is the Dow Jones REIT Index. This index measures the value of publicly traded REITs (Real Estate Investment Trusts) involved in a number of real estate sectors. For the fiscal year just ended, this index returned 55.7%, which was much improved over the

previous fiscal year when the index returned -45.3%. This range of returns demonstrates the volatility that the index has experienced over the past few years. MOSERS holds a portion of its real estate portfolio in private real estate. The NCREIF Property Index (The National Council of Real Estate Investment Fiduciaries Property Index) is used to track the returns of privately held properties in a variety of sectors. Over the past year, this index returned -1.5%, which was also much better than the previous year when the index returned -19.6%. It is interesting to note the difference in returns between the public REIT and private real estate indexes. Over shorter periods of time, as demonstrated over the past couple of years, the returns can be quite different. Over longer periods the returns should be similar since both indexes track the same sectors of the real estate market. This has been the case as demonstrated by the performance over the past 15 years when the Dow Jones REIT Index returned 10.0%, compared to the 8.8% return for the NCREIF Property Index.

The final component of the real assets sub-asset class is timber. Timber is known for its illiquidity and its long term investment horizon, but it also has some interesting characteristics that make it different from other asset classes. For example, each year the trees grow regardless of economic conditions. Over the past several quarters, as weakness in the housing sector persisted, the domestic demand

for sawlogs declined resulting in lower prices. During this period, the tree can be left on the stump in order to avoid selling into weak markets. In the meantime, while the economy recovers, the trees are continuously growing and adding mass. Over the last twelve months, timber, as measured by the NCREIF Timberland Index, returned -3.5%. This index tracks the return of U.S. timberlands grown in the south, northwest and northeast regions. Over the last seven years, timber has performed well for the system. Over this period it has earned returns in excess of the domestic equity markets while doing so with lower return volatility.

The private investments portfolio, both private equity and private debt, had a good year in terms of both relative and absolute performance. Benchmarking this part of the portfolio is extremely challenging. It is difficult to collect enough relevant data to make a meaningful comparison to private investment strategies. Also, the data that is collected and published, tends to be disseminated several months after the end of the relevant period. As an alternate benchmark, one method used by the industry is to assign a risk premium to publicly traded equity securities. The idea behind this is that an investor should expect to receive a return above that offered by the public markets to compensate for the added risk and illiquidity associated with private investments. Using this methodology, MOSERS has placed a 3% premium

over the return of the Standard & Poor's 500 Index. For the year ended June 30, 2010, this benchmark had a positive return of 17.4%.

In the years ahead, MOSERS will commit new money as appropriate to maintain its target allocation. In certain asset classes, such as private equity, private debt and private real estate, it is important to diversify by vintage year. Vintage year refers to the year in which the partnership makes its first investment. Committing capital consistently each year helps mitigate the risks associated with investing too much in a poor vintage year. The performance of the alternative investments portfolio, as well as the sub-asset classes and components will be discussed in the next section.

## Performance

MOSERS has been investing in alternative investments since June 2002, when the board of trustees adopted a revised asset mix. In the years since adoption, the number of external managers hired to implement the strategy has grown to 29, as of June 30, 2010.

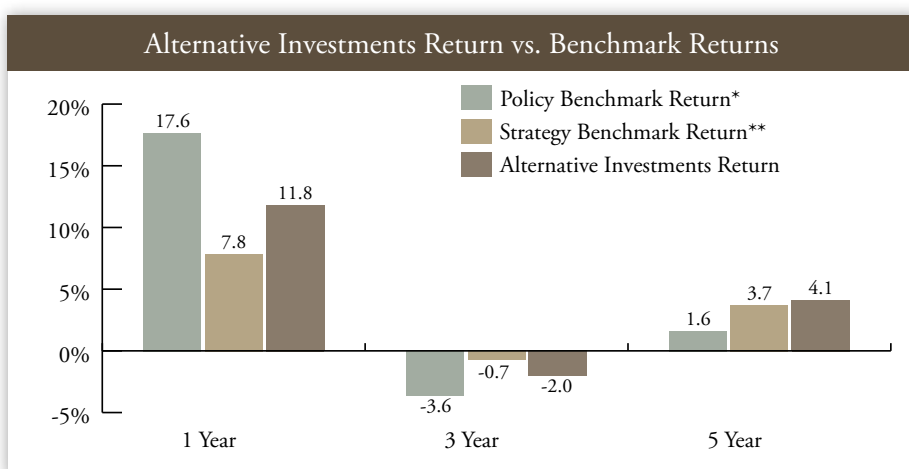
During the recently concluded fiscal year, the alternative investments portfolio operated in a more vibrant economic environment than that which was experienced in FY09. For the year ending June 30, 2010, the total alternatives portfolio returned 11.8%, which trailed the policy benchmark return of 17.6%.



The portfolio outperformed the strategy benchmark return of 7.8%, as illustrated in the bar chart to the right.

The return for the alternative investments portfolio is the aggregated return of the two sub-asset class portfolios. Over this period, the real assets portfolio returned 7.4%, while the private investments portfolio returned 19.3%. These returns are much improved over the previous fiscal year when the sub-asset class portfolios returned -19.8% and -27.3%, respectively. The returns, which varied greatly among the five portfolio components, ranged from -2.2% to 19.3%. Of the five components, all were positive with the exception of timber. Over the past two fiscal years, the returns within the alternative investments portfolio have been very volatile, underscoring the importance of asset class diversification and investing for the long term.

The policy benchmark for the alternative investments portfolio is a weighted average of the allocation mix and the policy benchmark of each component. The policy benchmark is designed to provide a return that could be achieved if the portfolio were to be invested passively. In order to determine the amount of value-added, the actual return is compared with the policy benchmark. Over the fiscal year just completed, the alternative investments portfolio underperformed the policy benchmark by 5.8%, which is the result of real estate performing below its respective policy benchmark.



\* As of 6/30/10, the alternative investments policy benchmark was comprised of the following components: 24% Wilshire REIT, 24% NCREIF Timberland, 40% S&P500 + 3%, and 12% GSCI.

\*\* As of 6/30/10, the alternative investments strategy benchmark was comprised of the following components: 26.9% real estate consisting of NCREIF, STIF Return, S&P MLP TR Index, actual return of Bayview; 9.1% commodities consisting of S&P GSCI TR and S&P GSCI Gold Excess Return; 24.6% NCREIF Timberland 39.4%; and S&P 500 + 3%.

### Alternative Investments - Statistical Performance

| Portfolio Characteristics     | 1 Year | 3 Year  | 5 Year | Since Inception<br>(July 2002) |
|-------------------------------|--------|---------|--------|--------------------------------|
| Annualized return             | 11.8%  | (1.7)%  | 4.0%   | 9.0%                           |
| Annualized standard deviation | 6.74%  | 9.89%   | 8.47%  | 8.66%                          |
| Sharpe ratio                  | 1.74   | (0.35)  | 0.12   | 0.76                           |
| Excess return*                | (5.9)% | 1.9%    | 2.3%   | 1.5%                           |
| Beta*                         | 0.17   | 0.35    | 0.37   | 0.46                           |
| Annualized alpha*             | 8.49%  | (0.63)% | 3.23%  | 5.25%                          |
| Correlation*                  | 0.34   | 0.68    | 0.67   | 0.72                           |

\* As compared to the alternative investments policy benchmark.

The alternative investments portfolio outperformed the strategy benchmark by 4.0% during the fiscal year.

The strategy benchmark seeks to attribute performance to decisions made by staff. These decisions would be to either deviate from the policy asset allocation or to utilize strategies that differ from the policy within predetermined ranges. This outperformance for the fiscal year can be attributed to all five components as each of them added value relative to the strategy benchmark. The strategy benchmark utilizes a set

of indexes that closely match the characteristics of the actual underlying investments. For example, the real estate portfolio is partially invested in private real estate. Instead of using the Dow Jones Wilshire REIT Index, the benchmark for the real estate component, the strategy benchmark for private real estate investments is the NCREIF Property Index.

### Statistical Performance

The table above displays the statistical performance data (net of fees) of the alternative investments portfolio as of June 30, 2010.



## REAL ASSETS

### Market Value

As of June 30, 2010, the value of the real assets sub-asset class had grown to \$1.1 billion, representing 15.8% of the total fund. The portfolio is made up of three separate and distinct components with the following market values and percentages of the total fund: commodities, \$157.9 million - 2.3%; timber, \$426.8 million - 6.3%; and real estate, \$487.5 million - 7.2%. Compared to their individual target weights, commodities are slightly underweight while both timber and real estate are above their target allocation.

### Summary of Portfolio

The target allocation for real assets is 15% of the total fund. The actual allocation can move within a range of 10% to 20%. At the end of the fiscal year, the allocation of each component and the overall real assets portfolio were close to target.

The commodities component of the real assets portfolio is implemented through an account managed by NISA Investment Advisors. The manager gains exposure to the underlying commodities through the use of exchange-traded futures contracts and/or swap agreements. Considered together, the futures contracts make up a portfolio that is benchmarked against the S&P GSCI. From time to time, NISA or MOSERS will attempt to add incremental return as market opportunities present themselves.

MOSERS' timber portfolio is made up of a number of properties located in the southeast and northwest regions of the U.S., as well as properties in Australia, New Zealand and South America. By holding both domestic and global timberlands, the portfolio is well diversified from a geographic standpoint. The portfolio is also diversified by age and species. The strategy is implemented by three Timber Investment Management Organizations (TIMOs). Returns from the timber component are expected to be attractive while providing diversification and inflation protection. As previously mentioned, timber, unlike most asset classes, grows regardless of economic conditions. When the price of sawlogs are weak, the TIMOs can manage the properties so that the trees can continue to grow and add mass.

The real estate component is composed of a number of private real estate investments as well as a few select strategies that exhibit risk-return characteristics that are similar to those of real estate. Private real estate is a significant part of the strategy. Over longer periods of time, private opportunistic real estate funds should provide returns in excess of those offered by publicly-traded REITs. MOSERS expects to add additional return due to the opportunistic nature of the investments, the skill of the manager and the illiquidity premium associated with owning private assets. In addition to private real estate, the portfolio also contains assets that have characteristics similar to those

of real estate. This means that the investments provide current income as well as the potential for moderate capital appreciation. Currently, investments in this category include Master Limited Partnerships (MLPs), residential mortgages, oil and gas assets and private debt investments. As previously mentioned, the real estate component is benchmarked against the Dow Jones Wilshire REIT Index. For the one-year period ended June 30, 2010, the index returned a stunning 55.7%, while the real estate component returned a respectable 17.9%. The underperformance can be attributed to a lack of REIT exposure.

As mentioned in the previous annual report, MOSERS divested its REIT holdings a few years ago because staff believed they were richly valued. This decision to exit the REIT market has added value. Over the past three years ending June 30, 2010, REITs have an annualized return of -10.3%. Over this same period, the real estate component has declined by 5.4% per year. While it is disappointing that the portfolio's return is negative over this period, a decline of much greater significance was avoided. Since the last annual report there has been one change in implementation worth noting. At the beginning of the fiscal year, staff began managing a MLP portfolio with the objective of matching the return of the S&P MLP Index. Since the inception of the portfolio, a period that involved some portfolio restructuring, the internally managed portfolio returned 47.9%. This was slightly ahead of the benchmark.

## Statistical Performance

The table to the right displays the statistical performance data (net of fees) of the real assets portfolio as of June 30, 2010.

## Investment Advisors

The real assets strategy is implemented through 14 distinct portfolios managed by 11 external investment firms and staff.

At June 30, 2010, the real assets allocation was slightly above its 15% target. Within the sub-asset class, timber and real estate were slightly above target while commodities were a bit below target. For the most part, the specific investments within the real assets portfolio remained in place throughout the fiscal year. As previously mentioned, MOSERS' internal staff began managing a passive MLP portfolio replacing one of the system's external investment managers. The table to the right shows the investment advisors in place as of June 30, 2010.

## Real Assets - Statistical Performance

| Portfolio Characteristics     | 1 Year  | 3 Year | 5 Year | Since Inception<br>(July 2002) |
|-------------------------------|---------|--------|--------|--------------------------------|
| Annualized return             | 7.4%    | 0.7%   | 4.5%   | 9.2%                           |
| Annualized standard deviation | 7.64%   | 9.25%  | 8.54%  | 8.90%                          |
| Sharpe ratio                  | 0.95    | (0.11) | 0.30   | 0.77                           |
| Excess return*                | (10.5)% | 2.6%   | 3.5%   | 2.0%                           |
| Beta*                         | 0.15    | 0.26   | 0.28   | 0.39                           |
| Annualized alpha*             | 4.76%   | 1.12%  | 4.79%  | 6.07%                          |
| Correlation*                  | 0.23    | 0.56   | 0.53   | 0.64                           |

\* As compared to the real assets policy

## Real Assets - Investment Advisors

| Investment Advisors                    | Style                                | Portfolio<br>Market Value |
|--|--------------------------------------|---------------------------|
| Bayview Asset Management               | Residential mortgages                | \$ 28,772,165             |
| Beta/alpha program                     | Active                               | 7,062,812                 |
| Blackstone Real Estate Advisors        | Active real estate                   | 127,768,949               |
| The Campbell Group                     | Northwestern U.S. timber             | 46,853,930                |
| CarVal Investors                       | Distressed investments               | 47,450,000                |
| Global Forest Partners                 | International timber                 | 150,020,535               |
| Harvest Fund Advisors                  | Active MLP                           | 86,144,824                |
| Internal Staff                         | Active long-duration U.S. Treasuries | 92,851,636                |
| Internal Staff                         | Cash                                 | 5,172,932                 |
| Internal Staff                         | Passive MLPs                         | 91,028,927                |
| Merit Energy                           | Oil & gas                            | 7,289,830                 |
| NISA Investment Advisors               | Enhanced GSCI                        | 150,819,442               |
| Oaktree Capital Management             | Active real estate                   | 27,647,277                |
| Resource Management Service            | Southeastern U.S. timber             | 134,659,140               |
| TCW-Energy and<br>Infrastructure Group | Mezzanine debt, diversified energy   | 68,611,822                |
| Total                                  |                                      | <u>\$ 1,072,154,221</u>   |

## Brokerage Activity

The table below illustrates the brokerage activity occurring within the real assets portfolio during the fiscal year.

| Real Assets - Brokerage Activity     |               |                         |               |                 |
|--------------------------------------|---------------|-------------------------|---------------|-----------------|
| Broker Firm                          | Shares Traded | Dollar Volume of Trades | Commissions   |                 |
|                                      |               |                         | Dollar Amount | Value Per Share |
| Barclays Capital, Inc.               | 44,375        | \$ 999,769              | \$ 1,331      | 0.03            |
| Blue Trading                         | 11,509        | 552,554                 | 345           | 0.03            |
| Citigroup Global Markets, Inc.       | 40,710        | 1,115,495               | 762           | 0.02            |
| Credit Suisse                        | 32,900        | 858,841                 | 987           | 0.03            |
| Fidelity Capital Markets             | 12,500        | 306,625                 | 375           | 0.03            |
| First Clearing, LLC                  | 44,000        | 1,240,645               | 1,320         | 0.03            |
| Hudson Securities, Inc.              | 12,000        | 237,360                 | 360           | 0.03            |
| Instinet Corp.                       | 1,419,522     | 35,879,345              | 14,195        | 0.01            |
| J.P. Morgan Clearing Corp.           | 13,029        | 105,045                 | 466           | 0.04            |
| Jones Trading Institutional Services | 152,983       | 2,608,221               | 4,589         | 0.03            |
| Madison Williams & Co.               | 91,880        | 2,544,980               | 2,756         | 0.03            |
| Merlin Securities, LLC               | 3,352,389     | 81,433,638              | 34,078        | 0.01            |
| Morgan Stanley & Co., Inc.           | 232,551       | 6,467,369               | 6,977         | 0.03            |
| Oppenheimer & Co., Inc.              | 70,570        | 2,086,956               | 2,117         | 0.03            |
| Penson Financial Services, Inc.      | 33,000        | 799,269                 | 990           | 0.03            |
| Pershing, LLC                        | 12,500        | 192,120                 | 375           | 0.03            |
| Pickering Energy Partners            | 62,663        | 2,252,482               | 1,880         | 0.03            |
| Raymond James & Assoc., Inc.         | 39,472        | 1,184,977               | 1,184         | 0.03            |
| UBS Securities, LLC                  | 103,114       | 2,662,061               | 3,093         | 0.03            |
| Wells Fargo Securities, LLC          | 212,519       | 7,686,362               | 6,476         | 0.03            |
| Wunderlich Securities, Inc.          | 481,381       | 13,666,035              | 14,441        | 0.03            |
| Total                                | 6,475,567     | \$ 164,880,149          | \$ 99,097     | 0.02            |

## Soft Dollar Expenditures

There were no commissions directed for soft dollars credits during the fiscal year ended June 30, 2010.

## PRIVATE INVESTMENTS

### Market Value

The private investments allocation had a value of \$669.1 million as of June 30, 2010, representing 9.8% of the total fund. The value of the private equity component was \$383.7 million, and the private debt component was valued at \$285.4 million.

### Summary of Portfolio

The private investments component is made up of a broad range of strategies each with its own risk-return profile. The objective of the private investments allocation is to achieve the higher returns associated with opportunistic strategies due in part to the illiquidity premium inherent with these investments. In addition, the portfolio provides diversification at the total fund level. This segment of the portfolio is expected to produce returns in excess of the public equity markets over a full-market cycle and therefore is assigned a policy benchmark of the S&P 500 Index plus 3%.

During the latest fiscal year, several commitments were made in the private investments portfolio. These commitments were made to a range of strategies. Most involved new strategies and new relationships while one was made to a strategy with an existing manager. These new strategies should serve MOSERS well in terms of earning attractive returns while providing further diversification to the total fund. Early in FY10, an

investment was made in the royalty streams of established prescription drugs. Investors in these instruments have the contractual right to receive payment based on drug sales over a defined period. MOSERS' investment was made in two forms, one in a fund of existing drug royalties and the second in a fund that will invest in these instruments over the next few years. Drug royalties have several attractive qualities, one of which is the differentiated risk-return risk profile compared with more typical private equity investments.

Another new relationship was established with a firm focused on direct-secondary investments. This strategy involves purchasing the securities of rapidly growing, best-of-breed technology companies. These investments are considered secondary because they are typically bought from the primary owner, such as a company founder, company employees or other long-term investors. By targeting established revenue-producing companies, the strategy seeks to generate compelling returns while assuming much less risk than earlier investors.

The final new commitment was made to a partnership that specializes in buyout transactions in the health care and life sciences industry. The health care industry represents a large portion of the U.S. economy. It is also highly fragmented which provides a vast opportunity to build high quality companies. The industry should have a bright future given

the advances in technology and the demographic trends in place. Finally, this sector has been less sensitive to the economic cycle when compared to other sectors. Each of these new strategies represents a market segment with several attractive qualities where the MOSERS portfolio has limited private equity exposure.

In addition to the new investments, MOSERS committed capital to a distressed debt partnership that is managed by a firm with a long and successful history with MOSERS. In the years ahead, as large quantities of debt are restructured or refinanced, this strategy may offer an excellent risk-return profile. MOSERS looks to participate in this opportunity by owning securities that typically hold a superior claim on the assets of a company. These underlying assets should provide a degree of downside protection in the event of another economic downturn.

As you can see, the commitments made during FY10 were very diverse in nature. These investments, in conjunction with the remainder of the portfolio, will seek to provide returns in excess of those offered in the public equity markets. Furthermore, the alternative investments asset class will play an important role in helping the overall fund meet its objective.

## Statistical Performance

The table to the right displays the statistical performance data (net of fees) of the private investments portfolio as of June 30, 2010.

## Investment Advisors

The private investments component consists of 30 separate fund investments managed by 20 external investment managers. During FY10, a number of commitments were made as described in the previous section. At the end of the fiscal year, private investments accounted for 9.8%, of the total portfolio. Of this allocation, private equity and debt made up 5.6% and 4.2%, respectively. Typically, the private equity portion would comprise a greater share of the private investments portfolio. The higher allocation to private debt reflects the opportunity available in the current environment. MOSERS plans to continue investing in this sub-asset class in an effort to sustain the target allocation of 10%. The advisors in this sub-asset class as of June 30, 2010, are listed in the table to the right.

## Brokerage Activity

There was no brokerage activity within the private investments portfolio during this fiscal year.

## Soft Dollar Expenditures

There were no commissions directed for soft dollars credits during the fiscal year ended June 30, 2010.

### Private Investments - Statistical Performance

| Portfolio Characteristics     | 1 Year | 3 Year  | 5 Year | Since Inception<br>(Sept. 2002) |
|-------------------------------|--------|---------|--------|---------------------------------|
| Annualized return             | 19.3%  | (6.6)%  | 1.7%   | 11.1%                           |
| Annualized standard deviation | 9.10%  | 12.92%  | 10.68% | 12.63%                          |
| Sharpe ratio                  | 2.11   | (0.64)  | (0.12) | 0.69                            |
| Excess return*                | 1.9%   | (0.2)%  | 0.5%   | 1.0%                            |
| Beta*                         | 0.23   | 0.48    | 0.51   | 0.65                            |
| Annualized alpha*             | 14.11% | (3.75)% | 1.02%  | 4.44%                           |
| Correlation*                  | 0.42   | 0.74    | 0.75   | 0.74                            |

\* As compared to the total private investments policy

### Private Investments - Investment Advisors

| Investment Advisors            | Style                            | Portfolio<br>Market Value |
|--------------------------------|----------------------------------|---------------------------|
| Actis Capital                  | Emerging markets - global        | \$ 17,228,839             |
| Alinda Capital Partners        | Corporate buyout; infrastructure | 27,196,683                |
| Axiom Asia Private Capital     | Emerging markets - fund-of-funds | 4,551,152                 |
| Bridgepoint Capital Partners   | Corporate buyout - foreign       | 27,649,546                |
| CarVal Investors               | Distressed investments           | 47,450,000                |
| Catterton Partners             | Corporate buyout                 | 40,968,136                |
| DDJ Capital Management         | Distressed debt                  | 15,448,413                |
| Development Partners Int'l     | Emerging markets, Africa         | 4,869,016                 |
| DRI Capital                    | Royalties                        | 41,316,214                |
| Internal Staff*                | Cash                             | 993,847                   |
| JLL Partners                   | Corporate buyout                 | 40,152,499                |
| MHR Fund Management            | Distressed debt                  | 69,478,881                |
| Millennium Technology Ventures | Direct secondary                 | 1,000,000                 |
| New Mountain Capital           | Corporate buyout                 | 14,252,241                |
| NISA Investment Advisors*      | Equity futures                   | 4,371,590                 |
| Oaktree Capital Management     | Distressed debt/European debt    | 152,088,238               |
| OCM/GFI Power Opportunities    | Corporate buyout                 | 11,345,602                |
| Parish Capital Partners        | Corp. buyout - fund-of-funds     | 44,892,142                |
| Silver Creek Management        | Special situations               | 46,448,874                |
| Silver Lake Partners           | Corporate buyout                 | 24,572,792                |
| Veritas Capital Partners       | Corporate buyout                 | 32,860,838                |
| Total                          |                                  | <u>\$ 669,135,543</u>     |

\* Temporary placeholder for future capital drawdowns to private equity managers.

## BETA/ALPHA PROGRAM

This program began as a result of MOSERS' investment belief that returns from these two components should be managed separately.

The beta portion of the program is managed by NISA Investment Advisors. NISA uses futures and/or total return swaps to gain market exposure to various predefined indices.

The alpha program is a group of active managers with little or no systematic beta exposure. The objective of the alpha component is to provide a net of fees alpha return of 4% with similar to slightly higher volatility. This return can then be applied to various asset classes.

The combination of the two components produces an efficient total return and also provides MOSERS a great deal of flexibility in the management of the fund.

## BETA PROGRAM

### Market Value

The total notional exposure was \$1.6 billion as of June 30, 2010. The beta component contained total return swaps and futures as of June 30, 2010. MOSERS is utilizing the beta component within the domestic equity, international equity, commodities and core fixed income sub-asset classes.

### Summary of Program

The beta component was added to the total fund in FY05. The beta manager seeks market exposure in the most cost efficient manner. The beta manager seeks to produce a market return gross of the financing cost to gain beta exposure. The manager's goal is to provide market exposure.

### Statistical Performance

The impact of the exposures is contained in the portfolios where the beta resides. Further information regarding swaps and futures can be found in the *Notes to the Financial Statements* on page 41.

### Investment Advisors

NISA Investment Advisors is the only manager in the beta program. The table below summarizes our investments within the beta pool as of June 30, 2010. Management fee information may be found on page 76-77 of this report.

#### Beta Program - Investment Advisors

| Investment Advisors      | Style                   | Portfolio Notional Value |
|--------------------------|-------------------------|--------------------------|
| NISA Investment Advisors | Synthetic beta exposure | \$ 1,597,868,546         |

## ALPHA PROGRAM

### Market Value

The alpha program allocation was \$1.6 billion or 23.7% of the total fund as of June 30, 2010.

### Summary of Portfolio

The alpha program portfolio was added to the total fund in FY05. Alpha program managers utilize skill-based investment strategies, which allow them to take advantage of periodic inefficiencies that may exist within the market. Alpha program managers seek to produce consistent returns in various economic environments. The ultimate goal within the alpha program is to provide



consistent alpha with little market exposure to other areas of the fund. MOSERS utilizes several different strategies within the alpha program including relative value, arbitrage, and event driven. This portfolio targets the return of cash plus 4% net of fees over long periods of time.

### Statistical Performance

The table to the right displays the statistical performance data of the alpha program portfolio (net of fees related to the beta program) as of June 30, 2010.

### Investment Advisors

The alpha program was started in FY05. Blackstone Alternative Asset Management, an existing fund-of-funds manager, was transferred into the alpha program. The following managers were hired and added to the pool in FY05: AQR Capital Management, Barclays Global Investors, Bridgewater Associates, and Pacific Alternative Asset Management Company (PAAMCO). Aetos Capital was also hired in FY05 as an additional manager in the alpha program. Aetos constructed a customized portfolio of core hedge funds that would later become the basis for MOSERS direct hedge fund investment program. On January 1, 2009, MOSERS internal staff assumed responsibility for the oversight of the hedge funds in the customized fund-of-funds portfolio. The table above summarizes the investments with hedge fund managers as of June 30, 2010. Management fee information may be found on pages 76-77 of this report.

### Alpha Program - Statistical Performance

| Portfolio Characteristics                     | 1 Year | 3 Year | 5 Year | Since Inception<br>(Oct. 2004) |
|---|--------|--------|--------|--------------------------------|
| Annualized return                             | 11.2%  | (0.4)% | 2.2%   | 2.5%                           |
| Annualized standard deviation                 | 3.20%  | 6.10%  | 4.93%  | 4.69%                          |
| Sharpe ratio*                                 | 3.45   | (0.34) | (0.15) | (0.09)                         |
| Beta as compared to the S&P 500               | 0.15   | 0.16   | 0.16   | 0.16                           |
| Beta as compared to the<br>Barclays Aggregate | 0.14   | 0.26   | 0.09   | 0.04                           |

\* Sharpe ratio equals the annualized alpha program returns less the risk-free rate divided by the annualized standard deviation. Fees related to the beta program also reflect the risk-free rate and are therefore not considered in this calculation.

### Alpha Program - Investment Advisors

| Investment Advisors                       | Style             | Portfolio<br>Market Value |
|---|-------------------|---------------------------|
| AQR Capital Management                    | Multi-strategy    | \$ 239,868,287            |
| Blackstone Alternative Asset Management   | Fund-of-funds     | 219,509,748               |
| Blackstone Distressed Securities Advisors | Long/short credit | 2,945,894                 |
| Brevan Howard Capital Management          | Global macro      | 51,240,296                |
| Bridgewater Associates                    | Global macro      | 103,010,585               |
| Claren Road Asset Management              | Long/short credit | 49,387,891                |
| Davidson Kempner Capital Management       | Event driven      | 77,490,844                |
| Diamondback Capital Management            | Long/short equity | 78,329,206                |
| Elliott International Capital Advisors    | Multi-strategy    | 51,728,939                |
| Eton Park Capital Management              | Multi-strategy    | 51,965,081                |
| Farallon Capital Management               | Multi-strategy    | 47,597,246                |
| HBK Investments                           | Multi-strategy    | 32,713,780                |
| King Street Capital Management            | Credit driven     | 79,769,323                |
| Moon Capital Management                   | Long/short equity | 799,740                   |
| Pacific Alternative Asset Management Co.  | Fund-of-funds     | 221,457,729               |
| Perry Capital                             | Multi-strategy    | 452,473                   |
| Silver Point Capital                      | Credit driven     | 52,518,693                |
| Wellington Hedge Management               | Long/short equity | 1,477,678                 |
| Alpha program cash                        | Short-term cash   | 248,559,051               |
| Total                                     |                   | <u>\$ 1,610,822,484</u>   |

## SECURITIES LENDING SUMMARY

In FY10, MOSERS earned net income of \$1,204,378 through its securities lending programs. MOSERS lends its domestic equities, international equities, and domestic fixed income to a borrower that manages an agent lending program.

In an agent lending program, a large custodial bank or investment banking institution, acts on behalf of the beneficial owner to lend its securities. This type of lending program is essentially a “one-stop shopping” process in which all operational aspects of the program are centered exclusively with one entity. The agent lender is responsible for making the loans to various broker-dealers, investing the cash collateral associated

with the loaned securities, marking the loans and collateral to market on a daily basis, and, in most cases, indemnifying the lender against the default of a broker-dealer to whom they have loaned securities on behalf of the beneficial owner.

Deutsche Bank replaced Credit Suisse as the agent lender of MOSERS’ securities for this program in the second quarter of 2010.

### Domestic Equity

MOSERS generated total net income from the domestic equity agent-lending program of \$864,401 in FY10. The income from this program was \$731,844 less than FY09 stemming from a decrease in the

average on loan balance, utilization rate, and margin basis points.

The table below contains the domestic equity securities lending program information from FY02 through FY10.

### International Equity

MOSERS generated total net income from the international equity securities lending program of \$109,946 in FY10. The income earned decreased from FY09 by \$400,676 due to a decrease in the average on loan balance, margin basis points, and utilization rate.

The international equity securities lending program information from FY02 through FY10 is shown below.

### Securities Lending - Domestic Equity

| Year | Average Lendable | Average on Loan | Average Utilization | Return Added to Lendable Domestic Equities (Basis Points) | Net Income |
|------|------------------|-----------------|---------------------|---|------------|
| FY10 | \$ 321,114,801   | \$ 83,944,408   | 26.1%               | 26.9  | \$ 864,401 |
| FY09 | 307,082,718      | 114,261,769     | 37.2                | 52.0  | 1,596,245  |
| FY08 | 440,025,347      | 195,971,154     | 44.5                | 36.6  | 1,611,536  |
| FY07 | 711,856,029      | 281,338,681     | 39.5                | 14.0  | 994,416    |
| FY06 | 856,712,658      | 377,314,359     | 44.0                | 14.2  | 1,218,245  |
| FY05 | 775,821,287      | 247,175,198     | 31.9                | 8.4   | 648,218    |
| FY04 | 1,552,186,713    | 176,626,818     | 11.4                | 7.2   | 1,114,144  |
| FY03 | 1,420,413,446    | 234,776,497     | 16.5                | 10.6  | 1,504,152  |
| FY02 | 2,347,223,937    | 254,035,429     | 10.8                | 8.6   | 2,027,903  |

### Securities Lending - International Equity

| Year | Average Lendable | Average on Loan | Average Utilization | Return Added to Lendable International Equities (Basis Points) | Net Income |
|------|------------------|-----------------|---------------------|--|------------|
| FY10 | \$ 277,251,343   | \$ 19,736,528   | 7.1%                | 4.0  | \$ 109,946 |
| FY09 | 342,215,198      | 32,267,851      | 9.4                 | 14.9   | 510,622    |
| FY08 | 467,893,205      | 56,944,925      | 12.2                | 15.5   | 726,565    |
| FY07 | 485,230,034      | 41,033,858      | 8.5                 | 8.1  | 395,017    |
| FY06 | 483,512,648      | 48,077,237      | 9.9                 | 12.9   | 605,315    |
| FY05 | 360,790,809      | 39,881,555      | 11.1                | 13.2   | 476,226    |
| FY04 | 462,783,570      | 53,655,836      | 11.6                | 9.7  | 446,880    |
| FY03 | 544,976,709      | 36,820,686      | 6.8                 | 13.7   | 744,985    |
| FY02 | 728,081,371      | 70,020,289      | 9.6                 | 15.5   | 1,130,928  |

## Domestic Fixed Income

MOSERS generated total net income from the domestic fixed income securities lending program of \$230,031 during FY10. The income from this program decreased by \$3,492,492 from FY09, primarily due to a decrease in the average on loan balance, utilization rate, and margin basis points.

The table below presents information for the domestic fixed income securities lending program for FY02 through FY10.

| Securities Lending - Domestic Fixed Income |                  |                 |                     |  |            |
|--|------------------|-----------------|---------------------|--|------------|
| Year                                       | Average Lendable | Average on Loan | Average Utilization | Return Added to Lendable Fixed Income (Basis Points) | Net Income |
| FY10                                       | \$ 836,242,270   | \$ 190,547,907  | 22.8%               | 2.8  | \$ 230,031 |
| FY09                                       | 859,512,525      | 517,356,516     | 60.2                | 43.3   | 3,722,523  |
| FY08                                       | 1,082,813,165    | 894,372,380     | 82.6                | 56.4   | 6,104,526  |
| FY07                                       | 950,069,746      | 695,743,093     | 73.2                | 15.5   | 1,469,860  |
| FY06                                       | 1,183,366,350    | 776,959,063     | 65.7                | 15.7   | 1,853,181  |
| FY05                                       | 1,091,262,589    | 776,038,981     | 71.1                | 19.5   | 2,126,695  |
| FY04                                       | 1,231,730,491    | 1,043,891,521   | 84.7                | 20.1   | 2,475,630  |
| FY03                                       | 969,156,824      | 757,537,477     | 78.2                | 17.6   | 1,707,400  |
| FY02                                       | 899,565,271      | 720,912,307     | 80.1                | 19.5   | 1,750,764  |

# COMMUNICATION

Excellent customer service begins with reliable communication that evolves over time.

MOSERS is dedicated, determined and committed to incorporating technology and practical innovation to improve communication with our members.

*Taking a moment to listen is a golden opportunity*



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## ACTUARIAL SECTION





## ACTUARY'S CERTIFICATION LETTER



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October 21, 2010

The Board of Trustees  
Missouri State Employees' Retirement System  
907 Wildwood Drive  
Jefferson City, Missouri 65102

Dear Board Members:

The basic financial objective of the Missouri State Employees' Retirement System (MOSERS) is to establish and receive contributions which:

- (1) when expressed in terms of percents of active member payroll will remain approximately level from generation to generation of Missouri citizens, and which
- (2) when combined with present assets and future investment return will be sufficient to meet the present and future financial obligations of MOSERS.

In order to measure progress toward this fundamental objective, MOSERS has annual actuarial valuations performed. The valuations (i) measure present financial position, and (ii) establish contribution rates that provide for the normal cost and level percent of payroll amortization of unfunded actuarial accrued liabilities over a reasonable period. The latest completed actuarial valuations were based upon data and assumptions as of June 30, 2010. These valuations indicate that the contribution rates for the fiscal year ending June 30, 2012, adopted by the board of trustees for the benefits scheduled to be in effect on and after July 1, 2010, meet the basic financial objective. These contribution rates are 13.97% of payroll for 53,478 General State Employees, and 57.30% of payroll for 402 Judges.

The actuarial valuations are based upon financial and participant data which is prepared by retirement system staff, assumptions regarding future rates of investment return, salary increases, and inflation, and assumptions regarding rates of retirement, turnover, death, and disability among MOSERS' members and their beneficiaries. The data is reviewed by us for internal and year-to-year consistency as well as general reasonableness prior to its use in the actuarial valuations. It is also summarized and tabulated for the purpose of analyzing trends. The demographic assumptions for members hired before January 1, 2011 were adopted by the board of trustees in March, 2008 based upon recommendations made in an experience study covering the period from 2003 to 2007. The demographic assumptions for members hired on or after January 1, 2011 were based upon fiscal notes filed in July 2010. The economic assumptions were adopted by the board of trustees in September, 2001 and amended and reaffirmed in March, 2008 and subsequently reviewed in July 2010. The assumptions and methods used in this valuation, in our opinion, meet the parameters established by Governmental Accounting Standards Board Statement No. 25.

The benefit structure is outlined in this section of the annual report. Benefit provisions evaluated were changed for members hired on or after January 1, 2011. We provided the information used in the supporting schedules in the *Actuarial Section* and the *Schedules of Funding Progress* in the *Financial Section*, as well as the employer contribution rates shown in the *Schedule of Employer Contributions* in the *Financial Section*.

Based upon the valuation results, it is our opinion that the Missouri State Employees' Retirement System continues to operate in accordance with actuarial principles of level percent of payroll financing.

Respectfully submitted,

Norman L. Jones, F.S.A.  
Senior Consultant & Actuary

David T. Kausch, F.S.A.  
Senior Consultant & Actuary

Brad Lee Armstrong, A.S.A.  
Senior Consultant & Actuary



## SUMMARY OF ACTUARIAL ASSUMPTIONS

### Economic Assumptions

The investment return rate used in the valuations was 8.5% per year, compounded annually (net after investment expenses). This assumption is used to account for the fact that equal amounts of money payable at different points in time in the future do not have the same value presently.

Pay increase assumptions for individual active members are shown in the following tables. Part of the assumption for each age is for merit and/or seniority increase, and the other 4% recognizes wage inflation. This assumption is used to project a member's current salary to the salaries upon which benefits will be based. The active member payroll is assumed to increase 4% annually, which is the portion of the individual pay increase assumptions

attributable to wage inflation. For the 2010 valuation only, payroll is assumed to grow 0% the first year, then 4% annually thereafter to reflect the statewide temporary pay freeze.

The number of active members in the MSEP is assumed to remain constant although certain new hires on or after July 1, 2002, will participate in the College and University Retirement Plan (CURP). For judges, the number of active members is assumed to continue at the present number. Active and retired member data is reported as of May 31. It is assumed for valuation purposes that there is no turnover among members and no new entrants during the month of June. New entrants after December 31, 2010, assumed demographic patterns are based on the demographics of active members hired within the last five years.

The annual cost-of-living adjustment (COLA) is assumed to be 4%, on a compounded basis, when a minimum COLA of 4% is in effect. When no minimum COLA is in effect, price inflation is assumed to be 3.2% and the annual COLA is assumed to be 2.56% (80% of 3.2%), on a compounded basis.

### Noneconomic Assumptions

The mortality table for post-retirement mortality used in evaluating allowances to be paid was the 1971 Group Annuity Mortality Table, projected to the year 2000, with a two year setback for men and a six year age setback for women. Disabled mortality tables are the healthy mortality tables set forward ten years. Related values are shown on page 106. This assumption is used to measure

### Summary of Actuarial Assumptions

#### MSEP - Separations From Active Employment Before Service Retirement and Individual Pay Increase Assumptions - June 30, 2010

| Sample Ages | Years of Service | Percent of Active Members Separating Within the Next Year |       |        |       |            |       | Pay Increase Assumptions for an Individual Employee |                |                    |
|-------------|------------------|---|-------|--------|-------|------------|-------|---|----------------|--------------------|
|             |                  | Withdrawal  |       | Death* |       | Disability |       | Merit and Seniority**                               | Base (Economy) | Increase Next Year |
|             |                  | Men   | Women | Men    | Women | Men        | Women |   |                |                    |
|             | 0                | 23.8%   | 26.9% |        |       |            |       |   |                |                    |
|             | 1                | 18.9  | 20.5  |        |       |            |       |   |                |                    |
|             | 2                | 15.3  | 15.4  |        |       |            |       |   |                |                    |
|             | 3                | 12.8  | 12.5  |        |       |            |       |   |                |                    |
|             | 4                | 11.8  | 10.9  |        |       |            |       |   |                |                    |
| 20          | +5               | 11.8  | 10.9  | .04%   | .03%  | .16%       | .30%  | 3.5%  | 4.0%           | 7.5%               |
| 25          |                  | 11.8  | 10.9  | .05    | .04   | .16        | .30   | 2.9   | 4.0            | 6.9                |
| 30          |                  | 10.0  | 10.0  | .06    | .04   | .16        | .30   | 2.2   | 4.0            | 6.2                |
| 35          |                  | 7.5   | 7.6   | .08    | .05   | .21        | .30   | 1.6   | 4.0            | 5.6                |
| 40          |                  | 5.6   | 5.6   | .11    | .07   | .26        | .32   | 1.2   | 4.0            | 5.2                |
| 45          |                  | 4.2   | 4.4   | .17    | .09   | .34        | .38   | 0.9   | 4.0            | 4.9                |
| 50          |                  | 3.4   | 3.9   | .31    | .14   | .49        | .57   | 0.7   | 4.0            | 4.7                |
| 55          |                  | 3.0   | 3.3   | .54    | .24   | 1.07       | .89   | 0.5   | 4.0            | 4.5                |
| 60          |                  | 2.6   | 3.0   | .83    | .44   | 1.50       | 1.50  | 0.4   | 4.0            | 4.4                |
| 65          |                  | 2.5   | 3.0   | 1.31   | .71   | 1.60       | 1.70  | 0.3   | 4.0            | 4.3                |

\* 2% of the deaths in active service are assumed to be duty-related

\*\* Does not apply to members of the General Assembly

the probabilities of each benefit payment being made after retirement.

The probabilities of age and service retirement are shown on page 106. For the MSEP, it was assumed that each member will be granted one half year of service credit for unused leave upon retirement and military service purchases.

The probabilities of withdrawal from service, disability, and death-in-service are shown for sample ages below.

The entry age normal actuarial cost method of valuation was used in determining liabilities and normal cost. The normal cost was based on the weighted average of the MSEP 2000 active member normal cost and the MSEP 2011 active member normal cost for the projected payroll composition of the active member population expected to be present during the fiscal year ended June 30, 2012. Differences in the past between assumed experience and actuarial experience ("actuarial gains and losses") become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are

amortized to produce payments, (principal & interest) which are level percents of payroll contributions.

The amortization of the unfunded actuarial accrued liability is based on a 30-year amortization period, level percent of payroll amortization. The amortization is based on the projected unfunded actuarial accrued liability at the beginning of the fiscal year. This method was first used in the June 30, 2010 valuation.

Employer contribution dollars were assumed to be paid in equal installments throughout the employer's fiscal year.

Valuation assets recognize assumed investment return fully each year. Differences between actual and assumed investment return are phased in over a closed five-year period. Valuation assets are not permitted to deviate from the market value by more than 25% for the June 30, 2010 valuation. This limit will change to 20% thereafter. It is assumed that among active members 80% are married at retirement,

70% of those dying in active service are married, and men are three years older than their spouses.

The liabilities for active members hired on or after July 1, 2000 (April 26, 2005 for administrative law judges) were based on MSEP 2000 benefits. The liabilities for active members hired before July 1, 2000 for elected officials, the General Assembly, and uniformed water patrol were based on MSEP benefits. All others were based on MSEP 2000 benefits. The BackDROP was only explicitly valued for those assumed to receive MSEP 2000 benefits for members hired prior to January 1, 2011.

The data about persons now covered and about present assets were furnished by the system's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary.

The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (M.A.A.A.).

### *Summary of Actuarial Assumptions*

#### **Judicial Plan - Separations From Active Employment Before Service Retirement and Individual Pay Increase Assumptions - June 30, 2010**

| Sample<br>Ages | Percent of Active Members<br>Separating Within the Next Year |       |       |       |            |       | Pay Increase Assumptions<br>for an Individual Employee |                   |                       |
|----------------|--|-------|-------|-------|------------|-------|--|-------------------|-----------------------|
|                | Withdrawal   |       | Death |       | Disability |       | Merit and<br>Seniority                                 | Base<br>(Economy) | Increase<br>Next Year |
|                | Men  | Women | Men   | Women | Men        | Women |  |                   |                       |
| 25             | 4.5%   | 4.5%  | .05%  | .04%  | .01%       | .01%  | 1.6%   | 4.0%              | 5.6%                  |
| 30             | 4.0  | 3.7   | .06   | .04   | .02        | .01   | 1.2  | 4.0               | 5.2                   |
| 35             | 2.8  | 2.6   | .08   | .05   | .03        | .02   | 0.9  | 4.0               | 4.9                   |
| 40             | 2.0  | 2.1   | .11   | .07   | .04        | .03   | 0.4  | 4.0               | 4.4                   |
| 45             | 1.5  | 1.9   | .17   | .09   | .05        | .04   | 0.3  | 4.0               | 4.3                   |
| 50             | 1.5  | 1.7   | .31   | .14   | .08        | .07   | 0.2  | 4.0               | 4.2                   |
| 55             | 1.5  | 1.2   | .54   | .24   | .13        | .12   | 0.2  | 4.0               | 4.2                   |
| 60             | 1.2  | 0.6   | .83   | .44   | .20        | .19   | 0.0  | 4.0               | 4.0                   |
| 65             | 0.9  | 0.4   | 1.31  | .71   | .20        | .19   | 0.0  | 4.0               | 4.0                   |

*Summary of Actuarial Assumptions***All Plans - Single Life Retirement Values - June 30, 2010**

| Sample<br>Attained<br>Ages | Present Value of \$1/Month the<br>First Year (with 50% Joint & Survivor)<br>Increasing 4.0%/2.56% Yearly |          |            |          | Present Value of \$1/Month the<br>First Year Increasing 2.56% Yearly |          |            |          | Future Life Expectancy (Years) |       |            |       |
|----------------------------|--|----------|------------|----------|--|----------|------------|----------|--------------------------------|-------|------------|-------|
|                            | Service  |          | Disability |          | Service  |          | Disability |          | Service                        |       | Disability |       |
|                            | Men  | Women    | Men        | Women    | Men  | Women    | Men        | Women    | Men                            | Women | Men        | Women |
| 40                         | \$212.00   | \$213.63 | \$199.71   | \$201.13 | \$181.06   | \$186.39 | \$162.92   | \$171.00 | 39.41                          | 43.25 | 30.06      | 33.73 |
| 45                         | 204.46   | 206.44   | 189.78     | 190.96   | 172.85   | 179.57   | 151.37     | 160.74   | 34.67                          | 38.46 | 25.67      | 29.17 |
| 50                         | 195.12   | 197.32   | 177.89     | 178.76   | 162.92   | 171.00   | 137.98     | 148.85   | 30.06                          | 33.73 | 21.50      | 24.82 |
| 55                         | 183.85   | 186.16   | 163.79     | 164.21   | 151.37   | 160.74   | 122.55     | 135.04   | 25.67                          | 29.17 | 17.57      | 20.70 |
| 60                         | 170.40   | 178.76   | 147.78     | 147.15   | 137.98   | 148.85   | 105.68     | 119.26   | 21.50                          | 24.82 | 13.99      | 16.82 |
| 65                         | 154.52   | 157.00   | 130.73     | 128.15   | 122.55   | 135.04   | 88.88      | 102.25   | 17.57                          | 20.70 | 10.91      | 13.32 |
| 70                         | 136.51   | 138.80   | 112.73     | 108.63   | 105.68   | 119.26   | 72.36      | 85.58    | 13.99                          | 16.82 | 8.29       | 10.36 |
| 75                         | 117.44   | 119.04   | 94.96      | 89.08    | 88.88  | 102.25   | 57.73      | 69.20    | 10.91                          | 13.32 | 6.23       | 7.83  |
| 80                         | 97.96  | 99.30    | 78.49      | 71.52    | 72.36  | 85.58    | 45.83      | 55.16    | 8.29                           | 10.36 | 4.70       | 5.89  |
| 85                         | 79.72  | 80.24    | 63.33      | 56.81    | 57.73  | 69.20    | 35.81      | 43.70    | 6.23                           | 7.83  | 3.51       | 4.44  |

*Summary of Actuarial Assumptions***MSEP (Normal Retirement Pattern) - Percent of Eligible Active Members Retiring Next Year - June 30, 2010**

| For Members Hired Prior to January 1, 2011 |                      |                      |                      |                      |                      |                      | For Members Hired<br>On or After January 1, 2011 |                     |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|---------------------|
| Retirement Age                             | MSEP (closed plan)   |                      |                      | MSEP 2000            |                      |                      | MSEP 2011  |                     |
|  | Year of Eligibility  |                      |                      | Year of Eligibility  |                      |                      | Retirement Age                                   | Year of Eligibility |
|  | 1 <sup>st</sup> Year | 2 <sup>nd</sup> Year | 3 <sup>rd</sup> Year | 1 <sup>st</sup> Year | 2 <sup>nd</sup> Year | 3 <sup>rd</sup> Year |  |                     |
| 48   | 20%                  |                      |                      | 27%                  |                      |                      |  |                     |
| 49   | 20                   | 10%                  |                      | 27                   | 14%                  |                      |  |                     |
| 50   | 20                   | 10                   | 8%                   | 27                   | 14                   | 18%                  |  |                     |
| 51   | 20                   | 10                   | 8                    | 27                   | 14                   | 18                   |  |                     |
| 52   | 20                   | 10                   | 8                    | 27                   | 14                   | 18                   |  |                     |
| 53   | 20                   | 10                   | 8                    | 27                   | 14                   | 18                   |  |                     |
| 54   | 20                   | 10                   | 8                    | 27                   | 14                   | 18                   |  |                     |
| 55   | 25                   | 10                   | 12                   | 27                   | 14                   | 25                   | 55   | 45%                 |
| 56   | 20                   | 10                   | 12                   | 27                   | 14                   | 25                   | 56   | 45                  |
| 57   | 20                   | 10                   | 12                   | 22                   | 14                   | 20                   | 57   | 35                  |
| 58   | 20                   | 10                   | 30                   | 22                   | 14                   | 20                   | 58   | 35                  |
| 59   | 20                   | 10                   | 30                   | 22                   | 14                   | 20                   | 59   | 30                  |
| 60   | 25                   | 10                   | 30                   | 25                   | 14                   | 25                   | 60   | 35                  |
| 61   | 20                   | 10                   | 30                   | 20                   | 14                   | 20                   | 61   | 25                  |
| 62   | 30                   | 15                   | 50                   | 20                   | 22                   | 35                   | 62   | 40                  |
| 63   | 20                   | 12                   | 40                   | 15                   | 20                   | 30                   | 63   | 30                  |
| 64   | 20                   | 12                   | 40                   | 20                   | 20                   | 20                   | 64   | 20                  |
| 65   | 30                   | 15                   | 50                   | 25                   | 20                   | 30                   | 65   | 30                  |
| 66   | 20                   | 12                   | 40                   | 20                   | 20                   | 25                   | 66   | 25                  |
| 67   | 20                   | 12                   | 40                   | 20                   | 20                   | 20                   | 67   | 20                  |
| 68   | 20                   | 12                   | 40                   | 20                   | 20                   | 20                   | 68   | 20                  |
| 69   | 20                   | 12                   | 40                   | 20                   | 20                   | 20                   | 69   | 20                  |
| 70   | 20                   | 12                   | 40                   | 20                   | 20                   | 20                   | 70   | 20                  |
| 71   | 20                   | 12                   | 40                   | 20                   | 20                   | 20                   | 71   | 20                  |
| 72   | 20                   | 12                   | 40                   | 20                   | 20                   | 20                   | 72   | 20                  |
| 73   | 20                   | 12                   | 40                   | 20                   | 20                   | 20                   | 73   | 20                  |
| 74   | 20                   | 12                   | 40                   | 20                   | 20                   | 20                   | 74   | 20                  |
| 75   | 100                  | 100                  | 100                  | 50                   | 50                   | 50                   | 75   | 50                  |
| 76   | 100                  | 100                  | 100                  | 50                   | 50                   | 50                   | 76   | 50                  |
| 77   | 100                  | 100                  | 100                  | 75                   | 75                   | 75                   | 77   | 75                  |
| 78   | 100                  | 100                  | 100                  | 100                  | 100                  | 100                  | 78   | 100                 |

*Summary of Actuarial Assumptions***MSEP (Early Retirement Pattern) - Percent of Eligible Active Members Retiring Next Year - June 30, 2010**

| For Members Hired Prior to January 1, 2011 |   | For Members Hired On or After January 1, 2011 |                                  |
|--|---|---|----------------------------------|
| Retirement Age                             | MSEP & MSEP 2000<br>Year of Eligibility | Retirement Age                                | MSEP 2011<br>Year of Eligibility |
| 57   | 3%                                      |   |                                  |
| 58   | 4                                       |   |                                  |
| 59   | 4                                       |   |                                  |
| 60   | 5                                       |   |                                  |
| 61   | 7                                       |   |                                  |
| 62   | 10                                      | 62  | 10%                              |
| 63   | 10                                      | 63  | 10                               |
| 64   | 10                                      | 64  | 10                               |
| 65   | 50                                      | 65  | 50                               |
| 66   | 50                                      | 66  | 50                               |
| 67   | 50                                      |   |                                  |
| 68   | 50                                      |   |                                  |
| 69   | 50                                      |   |                                  |
| 70   | 50                                      |   |                                  |
| 71   | 50                                      |   |                                  |
| 72   | 50                                      |   |                                  |
| 73   | 50                                      |   |                                  |
| 74   | 50                                      |   |                                  |
| 75   | 50                                      |   |                                  |
| 76   | 100                                     |   |                                  |

*Summary of Actuarial Assumptions***Judicial Plan - Percent of Eligible Active Members Retiring Next Year - June 30, 2010**

| For Members Hired Prior to January 1, 2011 |             |               | For Members Hired On or After January 1, 2011 |             |               |
|--|-------------|---------------|---|-------------|---------------|
| Retirement Age                             | Percent Men | Percent Women | Retirement Age                                | Percent Men | Percent Women |
| 55   | 10%         | 8%            |   |             |               |
| 56   | 10          | 8             |   |             |               |
| 57   | 10          | 8             |   |             |               |
| 58   | 10          | 8             |   |             |               |
| 59   | 10          | 8             |   |             |               |
| 60   | 10          | 15            |   |             |               |
| 61   | 5           | 10            |   |             |               |
| 62   | 10          | 15            | 62  | 30%         | 35%           |
| 63   | 5           | 10            | 63  | 20          | 20            |
| 64   | 5           | 10            | 64  | 15          | 20            |
| 65   | 20          | 40            | 65  | 30          | 50            |
| 66   | 25          | 25            | 66  | 25          | 25            |
| 67   | 20          | 25            | 67  | 20          | 25            |
| 68   | 20          | 25            | 68  | 20          | 25            |
| 69   | 30          | 50            | 69  | 30          | 50            |
| 70   | 100         | 100           | 70  | 100         | 100           |

*Summary of Actuarial Assumptions***MISCELLANEOUS AND TECHNICAL ASSUMPTIONS – JUNE 30, 2010****Pay Increase Timing**

- Middle of fiscal year for MSEP
- Beginning of fiscal year for judges.

**Decrement Timing**

Decrements of all types are assumed to occur mid-year.

**Eligibility Testing**

Eligibility for benefits is determined based upon age at nearest birthday and service nearest whole year on the date the decrement is assumed to occur.

**Benefit Service**

Exact fractional service is used to determine the amount of benefit payable.

**Decrement Relativity**

Decrement rates are used directly from the experience study, without adjustments for multiple decrement table effects.

**Decrement Operation**

Disability and mortality decrements do not operate during the first five years of service. Disability and withdrawal do not operate during normal retirement eligibility.

**Normal Form of Benefit**

The assumed normal form of benefit is the straight life form for the MSEP 2000 with 50% continuing to an eligible surviving spouse for the MSEP. No adjustment has been made for post-retirement option election changes. For judges, the

assumed normal form of benefit is the straight-life form with 50% continuing to an eligible surviving spouse for member hired prior to January 1, 2011.

**Other Liability Adjustments***MSEP 2000 Benefits for Active Employees*

- Normal retirement form of payment adjustment: 0.994
- Early retirement form of payment adjustment: 0.993

*Pre-Retirement Survivor Benefits for Spouse of Terminated-Vested Member*

| Age   | Male | Female |
|-------|------|--------|
| <30   | 3.20 | 2.32   |
| 30-39 | 1.89 | 1.52   |
| 40-49 | 1.32 | 1.18   |
| >50   | 1.07 | 1.04   |

There are no other liability adjustments for judges.

**Incidence of Contributions**

Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report and the actual payroll payable at the time contributions are made. New entrant normal cost contributions are applied to the funding of new entrant benefits.

**MSEP 2000 Election**

All regular state employees are assumed to elect MSEP 2000 at retirement. Elected officials, the General Assembly, and uniformed water patrol members hired before

July 1, 2000 and administrative law judges hired before April 26, 2005, are assumed to elect MSEP at retirement.

**Service Adjustment**

It is assumed that each member will be granted one half year of service credit, 2 months for unused leave upon retirement and 4 months for military service purchases.

**Forfeitures**

For those hired on or after January 1, 2011, 50% of state employees terminating at first vesting eligibility are assumed to take a refund and forfeit their deferred pension. This percentage decreases to 0% at first retirement eligibility.

For judges, vested members are assumed not to take a refund of member contributions and forfeit their benefit upon separation from service.

Active and retired member data was reported as of May 31, 2010. It was brought forward to June 30, 2010, by adding one month of service for all active members and the June COLA for certain retired members. It is expected that this procedure resulted in a slight overstatement of total liabilities as of June 30, 2010. Financial information continues to be reported as of June 30. This procedure was instituted to provide sufficient time for the board of trustees to certify the appropriate contribution rate prior to the October 1 statutory deadline.

# SUMMARY OF MEMBER DATA INCLUDED IN VALUATIONS

## PENSION TRUST FUNDS - JUNE 30, 2010

### Active Members

| Valuation Group                | Number | Annual Payroll   | Group Averages |            |                |
|--------------------------------|--------|------------------|----------------|------------|----------------|
|                                |        |                  | Salary         | Age (Yrs.) | Service (Yrs.) |
| <b>MSEP</b>                    |        |                  |                |            |                |
| Regular state employees        | 49,865 | \$ 1,747,311,866 | \$ 35,041      | 45.4       | 10.8           |
| Elected officials              | 6      | 659,978          | 109,996        | 48.8       | 5.5            |
| Legislative clerks             | 39     | 1,278,336        | 32,778         | 58.7       | 20.2           |
| Legislators                    | 196    | 7,051,594        | 35,978         | 51.4       | 5.8            |
| Uniformed water patrol         | 93     | 5,649,221        | 60,744         | 41.0       | 16.0           |
| Conservation department        | 1,445  | 60,698,031       | 42,006         | 45.0       | 14.7           |
| School-term salaried employees | 1,799  | 119,014,228      | 66,156         | 54.3       | 19.4           |
| Administrative law judges      | 35     | 3,432,067        | 98,059         | 54.8       | 16.6           |
| Total MSEP group               | 53,478 | \$ 1,945,095,321 | 36,372         | 45.7       | 11.2           |
| <b>Judicial Plan</b>           | 402    | \$ 46,112,730    | \$ 114,708     | 56.0       | 12.2           |

### Retired Members

| Type of Benefit Payment    | Number | Annual Benefits | Group Averages |            |
|----------------------------|--------|-----------------|----------------|------------|
|                            |        |                 | Benefit        | Age (Yrs.) |
| <b>MSEP</b>                |        |                 |                |            |
| Retirement                 | 29,370 | \$ 454,819,114  | \$ 15,486      | 69.2       |
| Disability                 | 10     | 33,876          | 3,388          | 59.5       |
| Survivor of active member  | 1,413  | 13,070,507      | 9,250          | 60.5       |
| Survivor of retired member | 2,458  | 25,728,736      | 10,467         | 74.6       |
| Total MSEP group           | 33,251 | \$ 493,652,233  | 14,846         | 69.2       |
| <b>Judicial Plan</b>       | 465    | \$ 24,538,904   | \$ 52,772      | 75.2       |

### Others

| Group                          | Terminated-Vested | Leave of Absence | Long-Term Disability |
|--------------------------------|-------------------|------------------|----------------------|
| Missouri State Employees' Plan | 17,399            | 327              | 964                  |
| Judicial Plan                  | 42                | 0                | 0                    |



## ACTIVE MEMBERS BY ATTAINED AGE AND YEARS OF SERVICE

JUNE 30, 2010

## MSEP

| Attained Age | Years of Service to Valuation Date |        |       |       |       |       |       | Totals |                   |
|--------------|------------------------------------|--------|-------|-------|-------|-------|-------|--------|-------------------|
|              | 0-4                                | 5-9    | 10-14 | 15-19 | 20-24 | 25-29 | 30+   | No.    | Valuation Payroll |
| 15-19        | 28                                 |        |       |       |       |       |       | 28     | \$ 564,072        |
| 20-24        | 1,365                              | 5      |       |       |       |       |       | 1,370  | 34,387,435        |
| 25-29        | 3,634                              | 725    | 18    |       |       |       |       | 4,377  | 130,569,657       |
| 30-34        | 2,622                              | 2,062  | 526   | 11    |       |       |       | 5,221  | 170,104,117       |
| 35-39        | 1,926                              | 1,707  | 1,737 | 398   | 14    |       |       | 5,782  | 199,938,944       |
| 40-44        | 1,646                              | 1,470  | 1,681 | 1,262 | 485   | 26    |       | 6,570  | 238,151,759       |
| 45-49        | 1,733                              | 1,543  | 1,551 | 1,186 | 1,272 | 608   | 62    | 7,955  | 297,535,674       |
| 50-54        | 1,485                              | 1,436  | 1,569 | 1,104 | 1,290 | 962   | 626   | 8,472  | 324,937,357       |
| 55-59        | 1,128                              | 1,251  | 1,426 | 1,078 | 1,215 | 629   | 661   | 7,388  | 293,421,356       |
| 60           | 185                                | 229    | 212   | 205   | 196   | 105   | 83    | 1,215  | 47,216,552        |
| 61           | 185                                | 208    | 225   | 196   | 167   | 87    | 76    | 1,144  | 44,977,419        |
| 62           | 149                                | 200    | 175   | 141   | 137   | 61    | 68    | 931    | 35,685,473        |
| 63           | 115                                | 178    | 153   | 141   | 106   | 38    | 61    | 792    | 32,298,346        |
| 64           | 87                                 | 128    | 142   | 112   | 74    | 48    | 60    | 651    | 27,138,413        |
| 65           | 39                                 | 87     | 88    | 69    | 54    | 25    | 32    | 394    | 17,061,148        |
| 66           | 24                                 | 55     | 75    | 43    | 47    | 23    | 27    | 294    | 12,585,428        |
| 67           | 19                                 | 56     | 52    | 37    | 26    | 17    | 31    | 238    | 10,616,021        |
| 68           | 22                                 | 44     | 38    | 19    | 18    | 10    | 20    | 171    | 7,229,686         |
| 69           | 11                                 | 16     | 39    | 14    | 21    | 2     | 13    | 116    | 4,429,750         |
| 70 & Over    | 55                                 | 63     | 77    | 49    | 50    | 23    | 52    | 369    | 16,246,714        |
| Totals       | 16,458                             | 11,463 | 9,784 | 6,065 | 5,172 | 2,664 | 1,872 | 53,478 | \$ 1,945,095,321  |

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Group Averages: Age - 45.7 years • Service - 11.2 years • Annual Pay - \$36,372

## Judicial Plan

| Attained Age | Years of Service to Valuation Date |     |       |       |       |       |     | Totals |                   |
|--------------|------------------------------------|-----|-------|-------|-------|-------|-----|--------|-------------------|
|              | 0-4                                | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30+ | No.    | Valuation Payroll |
| 35-39        | 8                                  |     |       |       |       |       |     | 8      | \$ 874,932        |
| 40-44        | 12                                 | 15  | 3     |       |       |       |     | 30     | 3,377,646         |
| 45-49        | 14                                 | 13  | 7     | 3     |       |       |     | 37     | 4,225,240         |
| 50-54        | 18                                 | 14  | 28    | 9     | 3     |       |     | 72     | 8,188,854         |
| 55-59        | 19                                 | 19  | 24    | 33    | 6     | 6     | 3   | 110    | 12,660,847        |
| 60           | 7                                  | 5   | 1     |       | 1     |       | 1   | 15     | 1,726,034         |
| 61           |                                    | 4   | 5     | 5     | 5     | 2     | 2   | 23     | 2,656,556         |
| 62           | 3                                  | 5   | 4     | 6     | 1     | 2     | 1   | 22     | 2,525,357         |
| 63           | 4                                  | 2   | 6     | 5     | 1     | 1     | 1   | 20     | 2,326,168         |
| 64           | 4                                  | 3   | 4     | 4     | 2     | 1     | 2   | 20     | 2,285,398         |
| 65           |                                    | 2   | 1     | 4     | 1     | 3     | 2   | 13     | 1,583,772         |
| 66           | 1                                  | 1   | 1     | 4     | 4     |       |     | 11     | 1,225,262         |
| 67           |                                    | 1   | 2     | 1     |       | 1     | 1   | 6      | 689,550           |
| 68           | 1                                  |     | 4     | 1     | 1     | 2     |     | 9      | 1,055,328         |
| 69           |                                    |     | 2     | 1     |       | 1     |     | 4      | 470,818           |
| 70           |                                    |     | 1     |       |       |       | 1   | 2      | 240,968           |
| Totals       | 91                                 | 84  | 93    | 76    | 25    | 19    | 14  | 402    | \$ 46,112,730     |

While not used in the financial computations, the following group averages are computed and shown because of their general interest.

Group Averages: Age - 56.0 years • Service - 12.2 years • Annual Pay - \$114,708

# SCHEDULES OF ACTIVE MEMBER VALUATION DATA

LAST SIX YEARS ENDED JUNE 30, 2010

## MSEP

| Valuation Date | Schedule of Active Member Valuation Data |                  |                    |                           |
|----------------|--|------------------|--------------------|---------------------------|
|                | Number                                   | Annual Payroll   | Annual Average Pay | % Increase in Average Pay |
| June 30, 2005  | 55,944                                   | \$ 1,806,600,560 | \$ 32,293          | 3.92%                     |
| June 30, 2006  | 54,493                                   | 1,777,277,138    | 32,615             | 1.00                      |
| June 30, 2007  | 54,363                                   | 1,846,643,330    | 33,969             | 4.15                      |
| June 30, 2008  | 54,542                                   | 1,916,527,398    | 35,139             | 3.44                      |
| June 30, 2009  | 55,057                                   | 2,002,402,087    | 36,370             | 3.50                      |
| June 30, 2010  | 53,478                                   | 1,945,095,321    | 36,372             | 0.01                      |

## Judicial Plan

| Valuation Date | Schedule of Active Member Valuation Data |                |                    |                           |
|----------------|--|----------------|--------------------|---------------------------|
|                | Number                                   | Annual Payroll | Annual Average Pay | % Increase in Average Pay |
| June 30, 2005  | 392                                      | \$ 40,016,098  | \$ 102,082         | 0.09%                     |
| June 30, 2006  | 394                                      | 40,270,535     | 102,209            | 0.12                      |
| June 30, 2007  | 400                                      | 40,846,581     | 102,116            | (0.09)                    |
| June 30, 2008  | 401                                      | 44,542,530     | 111,079            | 8.78                      |
| June 30, 2009  | 397                                      | 45,505,512     | 114,623            | 3.19                      |
| June 30, 2010  | 402                                      | 46,112,730     | 114,708            | 0.07                      |

# MSEP – RETIREES AND BENEFICIARIES ADDED AND REMOVED

## LAST SIX YEARS ENDED JUNE 30, 2010

| Fiscal Year Ended | Classification              | Benefit Type            | Added to Rolls |                   |
|-------------------|-----------------------------|-------------------------|----------------|-------------------|
|                   |                             |                         | Number         | Annual Allowances |
| June 30, 2005     | General employees           | Retirement              | 1,719          | \$ 27,796,807     |
|                   |                             | Survivor of active      | 78             | 891,051           |
|                   |                             | Survivor of retired     | 206            | 2,036,085         |
|                   |                             | Disability              | 0              | 1,409             |
|                   |                             | Occupational disability | 0              | 0                 |
|                   | Lincoln University - vested | Retirement              | 1              | 3,086             |
|                   |                             | Survivor of active      | 0              | 0                 |
|                   | Legislators                 | Retirement              | 31             | 606,743           |
|                   |                             | Survivor of active      | 2              | 15,361            |
|                   |                             | Survivor of retired     | 3              | 47,695            |
|                   | Elected officials           | Retirement              | 2              | 92,916            |
|                   |                             | Survivor of active      | 0              | 2,562             |
|                   |                             | Survivor of retired     | 0              | 1,089             |
|                   | ALJs                        | Retirement              | 4              | 203,829           |
|                   |                             | Survivor of active      | 0              | 0                 |
|                   |                             | Survivor of retired     | 0              | 4,987             |
| June 30, 2006     | General employees           | Retirement              | 1,853          | 30,323,860        |
|                   |                             | Survivor of active      | 76             | 997,296           |
|                   |                             | Survivor of retired     | 214            | 2,460,805         |
|                   |                             | Disability              | 0              | 1,356             |
|                   |                             | Occupational disability | 0              | 0                 |
|                   | Lincoln University - vested | Retirement              | 1              | 3,535             |
|                   |                             | Survivor of active      | 0              | 0                 |
|                   | Legislators                 | Retirement              | 6              | 141,548           |
|                   |                             | Survivor of active      | 0              | 4,398             |
|                   |                             | Survivor of retired     | 5              | 53,788            |
|                   | Elected officials           | Retirement              | 1              | 24,113            |
|                   |                             | Survivor of active      | 0              | 2,664             |
|                   |                             | Survivor of retired     | 0              | 1,132             |
|                   | ALJs                        | Retirement              | 6              | 219,793           |
|                   |                             | Survivor of active      | 0              | 0                 |
|                   |                             | Survivor of retired     | 1              | 30,686            |
| June 30, 2007     | General employees           | Retirement              | 2,211          | 37,839,159        |
|                   |                             | Survivor of active      | 89             | 897,874           |
|                   |                             | Survivor of retired     | 213            | 2,630,107         |
|                   |                             | Disability              | 0              | 1,104             |
|                   |                             | Occupational disability | 0              | 0                 |
|                   | Lincoln University - vested | Retirement              | 0              | 0                 |
|                   |                             | Survivor of active      | 0              | 0                 |
|                   | Legislators                 | Retirement              | 19             | 303,741           |
|                   |                             | Survivor of active      | 1              | 8,157             |
|                   |                             | Survivor of retired     | 5              | 95,976            |
|                   | Elected officials           | Retirement              | 0              | 0                 |
|                   |                             | Survivor of active      | 0              | 2,771             |
|                   |                             | Survivor of retired     | 0              | 1,178             |
|                   | ALJs                        | Retirement              | 0              | 35,846            |
|                   |                             | Survivor of active      | 0              | 0                 |
|                   |                             | Survivor of retired     | 0              | 6,071             |

| Removed from Rolls |                      | Rolls at End of Year |                      | Increase (Decrease)<br>in Annual Allowances | Average Annual<br>Allowances | Percentage in Average<br>Annual Allowances |
|--------------------|----------------------|----------------------|----------------------|---|------------------------------|--|
| Number             | Annual<br>Allowances | Number               | Annual<br>Allowances |   |                              |  |
| 737                | \$ 6,879,542         | 22,718               | \$ 319,029,705       | 7.02%                                       | \$ 14,043                    | 2.39%                                      |
| 47                 | 227,380              | 1,226                | 9,366,197            | 7.63  | 7,640                        | 4.90                                       |
| 92                 | 632,735              | 1,780                | 14,867,117           | 10.42                                       | 8,352                        | 3.35                                       |
| 3                  | 12,123               | 21                   | 69,348               | (13.38)                                     | 3,302                        | (1.01)                                     |
| 1                  | 17,448               | 0                    | 0                    | (100.00)                                    | 0                            | (100.00)                                   |
| 0                  | 0                    | 10                   | 46,940               | 7.04  | 4,694                        | (3.67)                                     |
| 0                  | 0                    | 1                    | 2,624                | 0.00  | 2,624                        | 0.00                                       |
| 14                 | 274,590              | 238                  | 4,592,111            | 7.80  | 19,295                       | 0.10                                       |
| 0                  | 0                    | 13                   | 138,157              | 12.51                                       | 10,627                       | (4.80)                                     |
| 1                  | 4,156                | 44                   | 508,655              | 9.36  | 11,560                       | 4.39                                       |
| 0                  | 0                    | 11                   | 453,077              | 25.80                                       | 41,189                       | 2.93                                       |
| 0                  | 0                    | 1                    | 66,610               | 4.00  | 66,610                       | 4.00                                       |
| 0                  | 0                    | 1                    | 28,308               | 4.00  | 28,308                       | 4.00                                       |
| 0                  | 0                    | 21                   | 940,884              | 27.65                                       | 44,804                       | 3.34                                       |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 8                    | 178,335              | 2.88  | 22,292                       | 2.88                                       |
|                    |                      |                      |                      |   |                              |  |
| 749                | 7,656,047            | 23,822               | 341,697,518          | 7.11  | 14,344                       | 2.14                                       |
| 48                 | 201,958              | 1,254                | 10,161,535           | 8.49  | 8,103                        | 6.06                                       |
| 80                 | 658,501              | 1,914                | 16,669,421           | 12.12                                       | 8,709                        | 4.27                                       |
| 5                  | 13,560               | 16                   | 57,144               | (17.60)                                     | 3,572                        | 8.18                                       |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 11                   | 50,475               | 7.53  | 4,589                        | (2.24)                                     |
| 0                  | 0                    | 1                    | 2,624                | 0.00  | 2,624                        | 0.00                                       |
| 6                  | 124,079              | 238                  | 4,609,580            | 0.38  | 19,368                       | 0.38                                       |
| 0                  | 0                    | 13                   | 142,555              | 3.18  | 10,966                       | 3.19                                       |
| 2                  | 39,490               | 47                   | 522,953              | 2.81  | 11,127                       | (3.75)                                     |
| 0                  | 0                    | 12                   | 477,190              | 5.32  | 39,766                       | (3.45)                                     |
| 0                  | 0                    | 1                    | 69,274               | 4.00  | 69,274                       | 4.00                                       |
| 0                  | 0                    | 1                    | 29,440               | 4.00  | 29,440                       | 4.00                                       |
| 2                  | 105,777              | 25                   | 1,054,900            | 12.12                                       | 42,196                       | (5.82)                                     |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 9                    | 209,021              | 17.21                                       | 23,225                       | 4.19                                       |
|                    |                      |                      |                      |   |                              |  |
| 740                | 8,391,528            | 25,293               | 371,145,149          | 8.62  | 14,674                       | 2.30                                       |
| 39                 | 281,916              | 1,304                | 10,777,493           | 6.06  | 8,265                        | 2.00                                       |
| 106                | 810,074              | 2,021                | 18,489,454           | 10.92                                       | 9,149                        | 5.05                                       |
| 4                  | 18,658               | 12                   | 39,590               | (30.72)                                     | 3,299                        | (7.64)                                     |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 11                   | 50,475               | 0.00  | 4,589                        | 0.00                                       |
| 0                  | 0                    | 1                    | 2,624                | 0.00  | 2,624                        | 0.00                                       |
| 7                  | 178,306              | 250                  | 4,735,015            | 2.72  | 18,940                       | (2.21)                                     |
| 0                  | 0                    | 14                   | 150,712              | 5.72  | 10,765                       | (1.83)                                     |
| 0                  | 0                    | 52                   | 618,929              | 18.35                                       | 11,902                       | 6.97                                       |
| 0                  | 0                    | 12                   | 477,190              | 0.00  | 39,766                       | 0.00                                       |
| 0                  | 0                    | 1                    | 72,045               | 4.00  | 72,045                       | 4.00                                       |
| 0                  | 0                    | 1                    | 30,618               | 4.00  | 30,618                       | 4.00                                       |
| 0                  | 0                    | 25                   | 1,090,746            | 3.40  | 43,630                       | 3.40                                       |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 9                    | 215,092              | 2.90  | 23,899                       | 2.90                                       |

Source of Data: MOSERS benefit payment database as of June 30, 2010.

Other Actuarial Section information reported based on MOSERS data as of May 31, 2010.

MSEP continued on pages 114-115

# MSEP – RETIREES AND BENEFICIARIES ADDED AND REMOVED

## SIX YEARS ENDED JUNE 30, 2010

Continued from pages 112-113

| Fiscal Year Ended | Classification              | Benefit Type            | Added to Rolls |                   |
|-------------------|-----------------------------|-------------------------|----------------|-------------------|
|                   |                             |                         | Number         | Annual Allowances |
| June 30, 2008     | General employees           | Retirement              | 2,159          | \$ 36,365,696     |
|                   |                             | Survivor of active      | 91             | 971,449           |
|                   |                             | Survivor of retired     | 234            | 2,715,274         |
|                   |                             | Disability              | 0              | 900               |
|                   | Lincoln University - vested | Occupational disability | 0              | 0                 |
|                   |                             | Retirement              | 2              | 5,478             |
|                   | Legislators                 | Survivor of active      | 0              | 0                 |
|                   |                             | Retirement              | 9              | 147,136           |
|                   |                             | Survivor of active      | 0              | 4,489             |
|                   | Elected officials           | Survivor of retired     | 5              | 114,053           |
|                   |                             | Retirement              | 0              | 37,804            |
|                   |                             | Survivor of active      | 0              | 2,882             |
|                   | ALJs                        | Survivor of retired     | 0              | 1,225             |
|                   |                             | Retirement              | 2              | 102,631           |
|                   |                             | Survivor of active      | 0              | 0                 |
|                   |                             | Survivor of retired     | 1              | 30,876            |
| June 30, 2009     | General employees           | Retirement              | 2,195          | 37,338,992        |
|                   |                             | Survivor of active      | 82             | 996,258           |
|                   |                             | Survivor of retired     | 251            | 3,077,466         |
|                   |                             | Disability              | 0              | 876               |
|                   | Lincoln University - vested | Occupational disability | 0              | 0                 |
|                   |                             | Retirement              | 0              | 0                 |
|                   | Legislators                 | Survivor of active      | 0              | 0                 |
|                   |                             | Retirement              | 21             | 746,414           |
|                   |                             | Survivor of active      | 0              | 5,137             |
|                   | Elected officials           | Survivor of retired     | 4              | 84,108            |
|                   |                             | Retirement              | 2              | 105,141           |
|                   |                             | Survivor of active      | 0              | 2,997             |
|                   | ALJs                        | Survivor of retired     | 0              | 1,274             |
|                   |                             | Retirement              | 3              | 168,517           |
|                   |                             | Survivor of active      | 0              | 0                 |
|                   |                             | Survivor of retired     | 2              | 57,238            |
| June 30, 2010     | General employees           | Retirement              | 2,298          | 34,755,192        |
|                   |                             | Survivor of active      | 83             | 1,054,292         |
|                   |                             | Survivor of retired     | 246            | 3,080,424         |
|                   |                             | Disability              | 0              | 830               |
|                   | Lincoln university - vested | Occupational disability | 0              | 0                 |
|                   |                             | Retirement              | 1              | 5,671             |
|                   | Legislators                 | Survivor of active      | 0              | 0                 |
|                   |                             | Retirement              | 12             | 201,562           |
|                   |                             | Survivor of active      | 0              | 3,975             |
|                   | Elected officials           | Survivor of retired     | 5              | 78,765            |
|                   |                             | Retirement              | 0              | 0                 |
|                   |                             | Survivor of active      | 0              | 3,117             |
|                   | ALJs                        | Survivor of retired     | 1              | 34,780            |
|                   |                             | Retirement              | 3              | 113,877           |
|                   |                             | Survivor of active      | 0              | 0                 |
|                   |                             | Survivor of retired     | 0              | 7,332             |

| Removed from Rolls |                      | Rolls at End of Year |                      | Increase (Decrease)<br>in Annual Allowances | Average Annual<br>Allowances | Percentage in Average<br>Annual Allowances |
|--------------------|----------------------|----------------------|----------------------|---|------------------------------|--|
| Number             | Annual<br>Allowances | Number               | Annual<br>Allowances |   |                              |  |
| 853                | \$ 9,745,552         | 26,599               | \$ 397,765,293       | 7.17%                                       | \$ 14,954                    | 1.91%                                      |
| 59                 | 259,787              | 1,336                | 11,489,155           | 6.60  | 8,600                        | 4.05                                       |
| 137                | 916,500              | 2,118                | 20,288,228           | 9.73  | 9,579                        | 4.70                                       |
| 1                  | 4,074                | 11                   | 36,416               | (8.02)                                      | 3,311                        | 0.35                                       |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 13                   | 55,953               | 10.85                                       | 4,304                        | (6.21)                                     |
| 0                  | 0                    | 1                    | 2,624                | 0.00  | 2,624                        | 0.00                                       |
| 10                 | 300,216              | 249                  | 4,581,935            | (3.23)                                      | 18,401                       | (2.84)                                     |
| 0                  | 0                    | 14                   | 155,201              | 2.98  | 11,086                       | 2.98                                       |
| 3                  | 24,638               | 54                   | 708,344              | 14.45                                       | 13,117                       | 10.21                                      |
| 0                  | 0                    | 12                   | 514,994              | 7.92  | 42,916                       | 7.92                                       |
| 0                  | 0                    | 1                    | 74,927               | 4.00  | 74,927                       | 4.00                                       |
| 0                  | 0                    | 1                    | 31,843               | 4.00  | 31,843                       | 4.00                                       |
| 2                  | 94,035               | 25                   | 1,099,342            | 0.79  | 43,974                       | 0.79                                       |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 10                   | 245,968              | 14.35                                       | 24,597                       | 2.92                                       |
|                    |                      |                      |                      |   |                              |  |
| 852                | 9,903,887            | 27,942               | 425,200,398          | 6.90  | 15,217                       | 1.76                                       |
| 54                 | 390,167              | 1,364                | 12,095,246           | 5.28  | 8,867                        | 3.10                                       |
| 110                | 827,564              | 2,259                | 22,538,130           | 11.09                                       | 9,977                        | 4.15                                       |
| 1                  | 4,237                | 10                   | 33,055               | (9.23)                                      | 3,306                        | (0.15)                                     |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 13                   | 55,953               | 0.00  | 4,304                        | 0.00                                       |
| 0                  | 0                    | 1                    | 2,624                | 0.00  | 2,624                        | 0.00                                       |
| 8                  | 120,396              | 262                  | 5,207,953            | 13.66                                       | 19,878                       | 8.03                                       |
| 1                  | 14,128               | 13                   | 146,210              | (5.79)                                      | 11,247                       | 1.45                                       |
| 2                  | 20,473               | 56                   | 771,979              | 8.98  | 13,785                       | 5.09                                       |
| 0                  | 0                    | 14                   | 620,135              | 20.42                                       | 44,295                       | 3.21                                       |
| 0                  | 0                    | 1                    | 77,924               | 4.00  | 77,924                       | 4.00                                       |
| 0                  | 0                    | 1                    | 33,117               | 4.00  | 33,117                       | 4.00                                       |
| 2                  | 90,337               | 26                   | 1,177,522            | 7.11  | 45,289                       | 2.99                                       |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 1                  | 27,354               | 11                   | 275,852              | 12.15                                       | 25,077                       | 1.95                                       |
|                    |                      |                      |                      |   |                              |  |
| 833                | 9,979,318            | 29,407               | 449,976,272          | 5.83  | 15,302                       | 0.56                                       |
| 49                 | 276,401              | 1,398                | 12,873,137           | 6.43  | 9,208                        | 3.85                                       |
| 117                | 1,078,265            | 2,388                | 24,540,289           | 8.88  | 10,277                       | 3.01                                       |
| 1                  | 2,985                | 9                    | 30,900               | (6.52)                                      | 3,433                        | 3.84                                       |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 14                   | 61,624               | 10.14                                       | 4,402                        | 0.00                                       |
| 0                  | 0                    | 1                    | 2,624                | 0.00  | 2,624                        | 0.00                                       |
| 12                 | 239,880              | 262                  | 5,169,635            | (0.74)                                      | 19,731                       | (0.74)                                     |
| 1                  | 16,709               | 12                   | 133,476              | (8.71)                                      | 11,123                       | (1.10)                                     |
| 0                  | 0                    | 61                   | 850,744              | 10.20                                       | 13,947                       | 1.18                                       |
| 1                  | 66,911               | 13                   | 553,224              | (10.79)                                     | 42,556                       | (3.93)                                     |
| 0                  | 0                    | 1                    | 81,041               | 4.00  | 81,041                       | 4.00                                       |
| 0                  | 0                    | 2                    | 67,897               | 105.02                                      | 33,949                       | 2.51                                       |
| 1                  | 46,794               | 28                   | 1,244,605            | 5.70  | 44,450                       | (1.85)                                     |
| 0                  | 0                    | 0                    | 0                    | 0.00  | 0                            | 0.00                                       |
| 0                  | 0                    | 11                   | 283,184              | 2.66  | 25,744                       | 2.66                                       |

Source of Data: MOSERS benefit payment database as of June 30, 2010.

Other *Actuarial Section* information reported based on MOSERS data as of May 31, 2010.



# JUDICIAL PLAN – RETIREES AND BENEFICIARIES ADDED AND REMOVED

## SIX YEARS ENDED JUNE 30, 2010

| Fiscal Year Ended | Benefit Type        | Added to Rolls |              | Removed from Rolls |            |
|-------------------|---------------------|----------------|--------------|--------------------|------------|
|                   |                     | Number         | Allowances   | Number             | Allowances |
| June 30, 2005     | Retirement          | 12             | \$ 1,159,324 | 8                  | \$ 402,329 |
|                   | Survivor of active  | 0              | 35,224       | 1                  | 14,247     |
|                   | Survivor of retired | 6              | 211,269      | 6                  | 75,799     |
|                   | Disability          | 0              | 0            | 0                  | 0          |
| June 30, 2006     | Retirement          | 11             | 952,792      | 11                 | 583,695    |
|                   | Survivor of active  | 2              | 89,661       | 2                  | 33,794     |
|                   | Survivor of retired | 6              | 219,711      | 4                  | 79,701     |
|                   | Disability          | 1              | 54,000       | 0                  | 0          |
| June 30, 2007     | Retirement          | 47             | 2,802,873    | 15                 | 967,969    |
|                   | Survivor of active  | 1              | 64,452       | 2                  | 40,742     |
|                   | Survivor of retired | 13             | 526,008      | 4                  | 91,948     |
|                   | Disability          | 0              | 0            | 1                  | 54,000     |
| June 30, 2008     | Retirement          | 21             | 1,554,013    | 17                 | 946,602    |
|                   | Survivor of active  | 0              | 31,650       | 4                  | 53,658     |
|                   | Survivor of retired | 11             | 387,194      | 8                  | 181,387    |
|                   | Disability          | 0              | 0            | 0                  | 0          |
| June 30, 2009     | Retirement          | 30             | 1,922,615    | 15                 | 957,943    |
|                   | Survivor of active  | 1              | 59,484       | 0                  | 0          |
|                   | Survivor of retired | 9              | 418,266      | 2                  | 61,344     |
|                   | Disability          | 0              | 0            | 0                  | 0          |
| June 30, 2010     | Retirement          | 12             | 1,137,305    | 13                 | 750,021    |
|                   | Survivor of active  | 0              | 32,700       | 2                  | 32,399     |
|                   | Survivor of retired | 11             | 436,312      | 5                  | 130,920    |
|                   | Disability          | 0              | 0            | 0                  | 0          |

| Rolls at End of Year |                   | Percentage<br>Increase (Decrease)<br>in Annual Allowances | Average<br>Annual Allowances | Percentage<br>Increase (Decrease) in Average<br>Annual Allowances |
|----------------------|-------------------|---|------------------------------|---|
| Number               | Annual Allowances |   |                              |   |
| 275                  | \$ 15,848,461     | 5.02%   | \$ 57,631                    | 3.49%   |
| 41                   | 939,372           | 2.28  | 22,912                       | 4.78  |
| 82                   | 2,003,030         | 7.25  | 24,427                       | 7.25  |
| 0                    | 0                 | 0.00  | 0                            | 0.00  |
| 275                  | 16,217,558        | 2.33  | 58,973                       | 2.33  |
| 41                   | 995,239           | 5.95  | 24,274                       | 5.94  |
| 84                   | 2,143,040         | 6.99  | 25,512                       | 4.44  |
| 1                    | 54,000            | 100.00  | 54,000                       | 100.00  |
| 307                  | 18,052,462        | 11.31   | 58,803                       | (0.29)  |
| 40                   | 1,018,949         | 2.38  | 25,474                       | 4.71  |
| 93                   | 2,577,100         | 20.25   | 27,711                       | 7.94  |
| 0                    | 0                 | (100.00)  | 0                            | (100.00)  |
| 311                  | 18,659,873        | 3.36  | 60,000                       | 2.00  |
| 36                   | 996,941           | (2.16)  | 27,693                       | 8.01  |
| 96                   | 2,782,907         | 7.99  | 28,989                       | 4.41  |
| 0                    | 0                 | 0.00  | 0                            | 0.00  |
| 326                  | 19,624,545        | 5.17  | 60,198                       | 0.33  |
| 37                   | 1,056,425         | 5.97  | 28,552                       | 3.01  |
| 103                  | 3,139,829         | 12.83   | 30,484                       | 4.90  |
| 0                    | 0                 | 0.00  | 0                            | 0.00  |
| 325                  | 20,011,829        | 1.97  | 61,575                       | 2.24  |
| 35                   | 1,056,726         | 0.03  | 30,192                       | 5.43  |
| 109                  | 3,445,221         | 9.73  | 31,608                       | 3.56  |
| 0                    | 0                 | 0.00  | 0                            | 0.00  |

Source of Data: MOSERS benefit payment database as of June 30, 2010.

Other *Actuarial Section* information reported based on MOSERS data as of May 31, 2010.

## SHORT-TERM SOLVENCY TEST

PENSION TRUST FUNDS - TEN YEARS ENDED JUNE 30, 2010

## MSEP

| Fiscal Year | Actuarial Accrued Liabilities for |  |  | Actuarial Value of Assets Available for Benefits | Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for: |        |       |
|-------------|-----------------------------------|--|--|--|---|--------|-------|
|             | Member Contributions (1)          | Current Retirees and Beneficiaries (2) | Active and Inactive Members, Employer Financed Portion (3) |  | (1)   | (2)    | (3)   |
| 2001        | \$ 0                              | \$ 2,496,277,500                       | \$ 3,568,889,216   | \$ 5,881,232,850                                 | 100.0%  | 100.0% | 94.8% |
| 2002        | 0                                 | 2,716,457,033                          | 3,577,815,242  | 6,033,133,598                                    | 100.0   | 100.0  | 92.7  |
| 2003        | 0                                 | 3,016,029,050                          | 3,646,262,356  | 6,057,329,072                                    | 100.0   | 100.0  | 83.4  |
| 2004        | 0                                 | 3,405,053,804                          | 3,824,957,124  | 6,118,214,495                                    | 100.0   | 100.0  | 70.9  |
| 2005        | 0                                 | 3,629,506,014                          | 3,948,522,003  | 6,435,344,102                                    | 100.0   | 100.0  | 71.1  |
| 2006        | 0                                 | 3,876,349,145                          | 4,136,856,269  | 6,836,567,188                                    | 100.0   | 100.0  | 71.6  |
| 2007        | 0                                 | 4,208,621,537                          | 4,291,807,104  | 7,377,289,283                                    | 100.0   | 100.0  | 73.8  |
| 2008        | 0                                 | 4,408,682,437                          | 4,719,665,033  | 7,838,495,768                                    | 100.0   | 100.0  | 72.7  |
| 2009        | 0                                 | 4,737,859,976                          | 4,756,946,739  | 7,876,079,342                                    | 100.0   | 100.0  | 66.0  |
| 2010        | 0                                 | 5,012,677,769                          | 4,840,477,676  | 7,923,377,393                                    | 100.0   | 100.0  | 60.1  |

## ALJLAP\*

| Fiscal Year | Actuarial Accrued Liabilities for |  |  | Actuarial Value of Assets Available for Benefits | Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for: |        |       |
|-------------|-----------------------------------|--|--|--|---|--------|-------|
|             | Member Contributions (1)          | Current Retirees and Beneficiaries (2) | Active and Inactive Members, Employer Financed Portion (3) |  | (1)   | (2)    | (3)   |
| 2001        | \$ 0                              | \$ 7,534,368                           | \$ 9,275,594   | \$ 14,410,199                                    | 100.0%  | 100.0% | 74.1% |
| 2002        | 0                                 | 8,268,650                              | 9,906,692  | 15,172,619                                       | 100.0   | 100.0  | 69.7  |
| 2003        | 0                                 | 9,709,096                              | 10,237,391   | 15,626,461                                       | 100.0   | 100.0  | 57.8  |
| 2004        | 0                                 | 9,188,086                              | 11,196,127   | 16,238,804                                       | 100.0   | 100.0  | 63.0  |

\*Assets and liabilities transferred to the MSEP during FY05

## Judicial Plan

| Fiscal Year | Actuarial Accrued Liabilities for |  |  | Actuarial Value of Assets Available for Benefits | Percentage of Actuarial Liabilities Covered by Actuarial Value of Assets Available for: |       |      |
|-------------|-----------------------------------|--|--|--|---|-------|------|
|             | Member Contributions (1)          | Current Retirees and Beneficiaries (2) | Active and Inactive Members, Employer Financed Portion (3) |  | (1)   | (2)   | (3)  |
| 2001        | \$ 0                              | \$ 143,163,718                         | \$ 104,815,186   | \$ 22,613,050                                    | 100.0%  | 15.8% | 0.0% |
| 2002        | 0                                 | 149,135,989                            | 106,979,463  | 29,651,113                                       | 100.0   | 19.9  | 0.0  |
| 2003        | 0                                 | 157,923,805                            | 109,126,052  | 34,566,516                                       | 100.0   | 21.9  | 0.0  |
| 2004        | 0                                 | 162,539,486                            | 117,857,978  | 39,120,142                                       | 100.0   | 24.1  | 0.0  |
| 2005        | 0                                 | 168,703,822                            | 123,600,064  | 44,223,509                                       | 100.0   | 26.2  | 0.0  |
| 2006        | 0                                 | 171,677,032                            | 137,325,720  | 51,652,867                                       | 100.0   | 30.1  | 0.0  |
| 2007        | 0                                 | 199,489,503                            | 127,176,870  | 61,903,516                                       | 100.0   | 31.0  | 0.0  |
| 2008        | 0                                 | 216,369,879                            | 138,426,574  | 73,194,379                                       | 100.0   | 33.8  | 0.0  |
| 2009        | 0                                 | 231,505,591                            | 137,601,250  | 81,337,881                                       | 100.0   | 35.1  | 0.0  |
| 2010        | 0                                 | 236,113,077                            | 145,899,696  | 88,976,738                                       | 100.0   | 37.7  | 0.0  |

## DERIVATION OF EXPERIENCE GAIN (LOSS)

**MSEP**

Actual experience will never coincide exactly with assumed experience (except by coincidence). Gains and losses may offset each other over a period of years, but sizeable year-to-year variations from assumed experience are common. Detail on the derivation of the experience gain (loss) is shown below.

|   | Millions  |
|---|-----------|
| (1) Unfunded actuarial accrued liability (UAAL) at beginning of year                        | \$1,618.7 |
| (2) Normal cost from last valuation   | 170.6     |
| (3) Actual employer contributions   | 254.8     |
| (4) Interest accrual: $(1) \times .085 + [(2) - (3)] \times (.085 \div 2)$                  | 134.0     |
| (5) Expected UAAL before changes: $(1) + (2) - (3) + (4)$                                   | 1,668.5   |
| (6) Change from any changes in benefits, assumptions, or methods                            | (114.5)   |
| (7) Expected UAAL after changes: $(5) + (6)$  | 1,554.0   |
| (8) Actual UAAL at end of year  | 1,929.8   |
| (9) Gain (loss) $(7) - (8)$   | (375.8)   |
| (10) Gain (loss) as a percent of actuarial accrued liabilities at start of year (\$9,494.8) | (4.0)%    |

| Actuarial Gain (Loss)<br>As a % of Beginning<br>Accrued Liabilities<br>(Valuation Date as of June 30) |        |
|---|--------|
| 2001  | (4.4)% |
| 2002  | (3.8)  |
| 2003  | (6.4)  |
| 2004  | (6.0)  |
| 2005  | (3.4)  |
| 2006  | (0.1)  |
| 2007  | 1.0    |
| 2008  | 0.1    |
| 2009  | (5.2)  |
| 2010  | (4.0)  |

**Judicial Plan**

The actuarial gains or losses realized in the operation of the retirement system provide an experience test. Gains and losses often cancel each other over a period of years, but sizable year-to-year fluctuations are common. Detail on the derivation of the actuarial gain (loss) is shown below, along with a year-by-year comparative schedule.

|   | Millions |
|---|----------|
| (1) Unfunded actuarial accrued liability (UAAL) at beginning of year                      | \$287.8  |
| (2) Employer normal cost middle of year   | 9.5      |
| (3) Employer contributions  | 27.0     |
| (4) Interest  |          |
| a. on (1)   | 24.4     |
| b. on (2)   | 0.4      |
| c. on (3)   | 1.1      |
| d. total $[a + b - c]$  | 23.7     |
| (5) Expected UAAL end of year before changes  | 294.0    |
| (6) Change in UAAL end of year  |          |
| a. amendments   | 0.0      |
| b. assumptions and technical corrections  | (5.0)    |
| c. methods  | 0.0      |
| d. total  | (5.0)    |
| (7) Expected UAAL after changes: $(5) + (6d.)$  | 289.0    |
| (8) Actual UAAL at end of year  | 293.0    |
| (9) Gain (loss) $(7) - (8)$   | (4.0)    |
| (10) Gain (loss) as a percent of actuarial accrued liabilities at start of year (\$369.1) | (1.1)%   |

| Actuarial Gain (Loss)<br>As a % of Beginning<br>Accrued Liabilities<br>(Valuation Date as of June 30) |       |
|---|-------|
| 2001  | (3.2) |
| 2002  | (0.2) |
| 2003  | (1.6) |
| 2004  | (1.0) |
| 2005  | (0.1) |
| 2006  | (1.1) |
| 2007  | (0.6) |
| 2008  | (3.0) |
| 2009  | (1.8) |
| 2010  | (1.1) |

*Summary of Plan Provisions*

## COMPARISON OF PLANS FOR GENERAL STATE EMPLOYEES – JUNE 30, 2010

MSEP AND MSEP 2000\*

| Plan Provision                                     | MSEP  | MSEP 2000   |
|--|---|---|
| <b>Membership eligibility</b>                      | <ul style="list-style-type: none"> <li>Members who work in a position normally requiring at least 1,040 hours of work a year.</li> </ul>  | <ul style="list-style-type: none"> <li>Members hired for the first time on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.</li> <li>Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.</li> </ul>   |
| <b>Normal retirement eligibility</b>               | <ul style="list-style-type: none"> <li>Age 65 and active with 4 years of service,</li> <li>Age 65 with 5 years of service,</li> <li>Age 60 with 15 years of service, or</li> <li>“Rule of 80” - minimum age 48.</li> </ul>  | <ul style="list-style-type: none"> <li>Age 62 with 5 years of service, or</li> <li>“Rule of 80” - minimum age 48.</li> </ul>  |
| <b>Early retirement eligibility</b>                | <ul style="list-style-type: none"> <li>Age 55 with 10 years of service.</li> </ul>  | <ul style="list-style-type: none"> <li>Age 57 with 5 years of service.</li> </ul>   |
| <b>Benefit</b>                                     |   |   |
| Life benefit                                       | <ul style="list-style-type: none"> <li>1.6% x final average pay (FAP) x service.</li> </ul>   | <ul style="list-style-type: none"> <li>1.7% x FAP x service.</li> </ul>   |
| Temporary benefit                                  | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  | <ul style="list-style-type: none"> <li>0.8% x FAP x service (until age 62 - only if retiring under “Rule of 80”).</li> </ul>  |
| <b>Vesting</b>                                     | <ul style="list-style-type: none"> <li>5 years of service.</li> </ul>   | <ul style="list-style-type: none"> <li>5 years of service.</li> </ul>   |
| <b>In-service cost-of-living adjustment (COLA)</b> | <ul style="list-style-type: none"> <li>COLA given for service beyond age 65. COLA provisions are determined by employment date.</li> </ul>  | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  |
| <b>COLA</b>  | <ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the change in the consumer price index (CPI) with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.</li> </ul> | <ul style="list-style-type: none"> <li>Annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.</li> </ul>   |
| <b>Survivor benefit</b>                            |   |   |
| Death <b>before</b> retirement                     |   |   |
| <i>Non duty-related death</i>                      | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member’s Life Income Annuity paid to eligible children.</li> </ul>   | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the members’ Life Income Annuity paid to eligible children.</li> </ul>   |
| <i>Duty-related death</i>                          | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>   | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>   |
| <b>Optional forms of payment</b>                   |   |   |
| Death <b>after</b> retirement                      | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Unreduced Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 60 or 120 Guaranteed Payments</li> <li>- BackDROP</li> </ul> </li> </ul>  | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 120 or 180 Guaranteed Payments</li> <li>- BackDROP</li> </ul> </li> </ul> |

\* This summary describes the plan provisions of the RSMo, as amended, that governed the programs, which MOSERS administered during the period covered by this report. It does not overrule any applicable statute or administrative rule and, in the event of a conflict, the applicable statute or rule would apply. The MSEP 2000 became effective July 1, 2000.

*Summary of Plan Provisions*COMPARISON OF PLANS FOR UNIFORMED  
MEMBERS OF THE WATER PATROL – JUNE 30, 2010

## MSEP AND MSEP 2000

| Plan Provision                       | MSEP   | MSEP 2000   |
|--------------------------------------|--|---|
| <b>Membership eligibility</b>        | <ul style="list-style-type: none"> <li>Members who work in a position normally requiring at least 1,040 hours of work a year.</li> </ul>   | <ul style="list-style-type: none"> <li>Members hired for the first time on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.</li> <li>Members who left state employment prior to becoming vested and returned to work on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.</li> </ul>   |
| <b>Normal retirement eligibility</b> | <ul style="list-style-type: none"> <li>Age 55 and active with 4 years of service,</li> <li>Age 55 with 5 years of service, or</li> <li>“Rule of 80” - minimum age 48.</li> </ul>   | <ul style="list-style-type: none"> <li>Age 62 with 5 years of service, or</li> <li>“Rule of 80” - minimum age 48.</li> </ul>  |
| <b>Early retirement eligibility</b>  | <ul style="list-style-type: none"> <li>Not available.</li> </ul>   | <ul style="list-style-type: none"> <li>Age 57 with 5 years of service.</li> </ul>   |
| <b>Benefit</b>                       |  |   |
| Life benefit                         | <ul style="list-style-type: none"> <li>1.6% x FAP x service increased by 33.3%.</li> </ul>   | <ul style="list-style-type: none"> <li>1.7% x FAP x service.</li> </ul>   |
| Temporary benefit                    | <ul style="list-style-type: none"> <li>Not available.</li> </ul>   | <ul style="list-style-type: none"> <li>0.8% x FAP x service (until age 62 - only if retiring under “Rule of 80”).</li> </ul>  |
| <b>Vesting</b>                       | <ul style="list-style-type: none"> <li>5 years of service.</li> </ul>  | <ul style="list-style-type: none"> <li>5 years of service.</li> </ul>   |
| <b>In-service COLA</b>               | <ul style="list-style-type: none"> <li>COLA given for service beyond age 65. COLA provisions are determined by employment date.</li> </ul>   | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  |
| <b>COLA</b>                          | <ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.</li> </ul> | <ul style="list-style-type: none"> <li>Annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.</li> </ul>   |
| <b>Survivor benefit</b>              |  |   |
| Death <b>before</b> retirement       |  |   |
| <i>Non duty-related death</i>        | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member’s Life Income Annuity paid to eligible children.</li> </ul>  | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member’s Life Income Annuity paid to eligible children.</li> </ul>   |
| <i>Duty-related death</i>            | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>  | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>   |
| <b>Optional forms of payment</b>     |  |   |
| Death <b>after</b> retirement        | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Unreduced Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 60 or 120 Guaranteed Payments</li> <li>- BackDROP</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>- Life Income Annuity</li> <li>- Joint &amp; 50% Survivor</li> <li>- Joint &amp; 100% Survivor</li> <li>- 120 or 180 Guaranteed Payments</li> <li>- BackDROP</li> </ul> </li> </ul> |



*Summary of Plan Provisions*

## COMPARISON OF PLANS FOR LEGISLATORS – JUNE 30, 2010

## MSEP AND MSEP 2000

| Plan Provision  | MSEP   | MSEP 2000   |
|---|--|---|
| <b>Membership eligibility</b>                                   | <ul style="list-style-type: none"> <li>Elected to the General Assembly.</li> </ul>   | <ul style="list-style-type: none"> <li>Elected to the General Assembly on or after July 1, 2000.</li> </ul>   |
| <b>Normal retirement eligibility</b>                            | <ul style="list-style-type: none"> <li>Age 55 with 3 full-biennial assemblies.</li> </ul>  | <ul style="list-style-type: none"> <li>Age 55 with 3 full-biennial assemblies, or</li> <li>“Rule of 80” - minimum age 50</li> </ul>   |
| <b>Early retirement eligibility</b>                             | <ul style="list-style-type: none"> <li>Not available.</li> </ul>   | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  |
| <b>Benefit</b>  |  |   |
| Life benefit  | <ul style="list-style-type: none"> <li>\$150 per month per biennial assembly.</li> </ul>   | <ul style="list-style-type: none"> <li>(Monthly base pay ÷ 24) x service capped at 100% of pay.</li> </ul>  |
| Temporary benefit   | <ul style="list-style-type: none"> <li>Not available.</li> </ul>   | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  |
| <b>Vesting</b>  | <ul style="list-style-type: none"> <li>3 full-biennial assemblies.</li> </ul>  | <ul style="list-style-type: none"> <li>3 full-biennial assemblies.</li> </ul>   |
| <b>In-service COLA</b>  | <ul style="list-style-type: none"> <li>COLA given for service beyond age 65. COLA provisions are determined by employment date.</li> </ul>   | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  |
| <b>COLA</b>   | <ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.</li> </ul> | <ul style="list-style-type: none"> <li>Benefit adjusted each year based on the percentage increase in the current pay for an active member of the General Assembly.</li> </ul>  |
| <b>Survivor benefit</b>   |  |   |
| Death <b>before</b> retirement<br><i>Non duty-related death</i> | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member’s Life Income Annuity paid to eligible children.</li> </ul>  | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member’s Life Income Annuity paid to eligible children.</li> </ul>   |
| <i>Duty-related death</i>                                       | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>  | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>   |
| <b>Optional forms of payment</b>                                |  |   |
| Death <b>after</b> retirement                                   | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>Life Income Annuity</li> <li>Unreduced Joint &amp; 50% Survivor</li> <li>Joint &amp; 100% Survivor</li> <li>60 or 120 Guaranteed Payments</li> </ul> </li> </ul>   | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include: <ul style="list-style-type: none"> <li>Life Income Annuity</li> <li>Joint &amp; 50% Survivor</li> <li>Joint &amp; 100% Survivor</li> <li>120 or 180 Guaranteed Payments</li> </ul> </li> </ul> |

## Summary of Plan Provisions

## COMPARISON OF PLANS FOR ELECTED OFFICIALS – JUNE 30, 2010

## MSEP AND MSEP 2000

| Plan Provision  | MSEP  | MSEP 2000   |
|---|---|---|
| <b>Membership eligibility</b>                                   | <ul style="list-style-type: none"> <li>Elected to state office.</li> </ul>  | <ul style="list-style-type: none"> <li>Elected to state office on or after July 1, 2000.</li> </ul>   |
| <b>Normal retirement eligibility</b>                            | <ul style="list-style-type: none"> <li>Age 65 with 4 years of service,</li> <li>Age 60 with 15 years of service, or</li> <li>“Rule of 80” - minimum age 48.</li> </ul>  | <ul style="list-style-type: none"> <li>Age 55 with 4 years of service, or</li> <li>“Rule of 80” - minimum age 50.</li> </ul>  |
| <b>Early retirement eligibility</b>                             | <ul style="list-style-type: none"> <li>Age 55 with 10 years of service.</li> </ul>  | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  |
| <b>Benefit</b>  |   |   |
| Life benefit  | <ul style="list-style-type: none"> <li>12 or more years of service               <ul style="list-style-type: none"> <li>50% of current pay for highest position held.</li> </ul> </li> <li>Less than 12 years of service               <ul style="list-style-type: none"> <li>1.6% x FAP x service.</li> </ul> </li> </ul>  | <ul style="list-style-type: none"> <li>(Monthly base pay ÷ 24) x service capped at 12 years or 50% of pay.</li> </ul>   |
| Temporary benefit   | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  |
| <b>Vesting</b>  | <ul style="list-style-type: none"> <li>4 years of service.</li> </ul>   | <ul style="list-style-type: none"> <li>4 years of service.</li> </ul>   |
| <b>In-service COLA</b>  | <ul style="list-style-type: none"> <li>COLA provisions determined by amount of service relative to 12 years and date of employment.</li> </ul>  | <ul style="list-style-type: none"> <li>Not available.</li> </ul>  |
| <b>COLA</b>   | <ul style="list-style-type: none"> <li>12 or more years of service               <ul style="list-style-type: none"> <li>COLA is equal to the percentage increase in the current pay of an active elected state official in the highest position held.</li> </ul> </li> <li>Less than 12 years of service               <ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>Benefit adjusted each year based on the percentage increase in the current pay for an active elected state official in the highest position held.</li> </ul>   |
| <b>Survivor benefit</b>   |   |   |
| Death <b>before</b> retirement<br><i>Non duty-related death</i> | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.</li> </ul>   | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% Survivor Option or 80% of the member's Life Income Annuity paid to eligible children.</li> </ul>   |
| <i>Duty-related death</i>                                       | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>   | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of current pay (no service requirement).</li> </ul>   |
| <b>Optional forms of payment</b>                                |   |   |
| Death <b>after</b> retirement                                   | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include:               <ul style="list-style-type: none"> <li>Life Income Annuity</li> <li>Unreduced Joint &amp; 50% Survivor</li> <li>Joint &amp; 100% Survivor</li> <li>60 or 120 Guaranteed Payments</li> </ul> </li> </ul>  | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse based on payment option elected at retirement. Payment options include:               <ul style="list-style-type: none"> <li>Life Income Annuity</li> <li>Joint &amp; 50% Survivor</li> <li>Joint &amp; 100% Survivor</li> <li>120 or 180 Guaranteed Payments</li> </ul> </li> </ul> |

*Summary of Plan Provisions***ADMINISTRATIVE LAW JUDGES AND LEGAL ADVISORS PLAN\* – JUNE 30, 2010**

| Plan Provision                        | Requirement  |
|---------------------------------------|--|
| <b>Membership eligibility</b>         | <ul style="list-style-type: none"> <li>Administrative law judge or legal advisor in the Division of Workers' Compensation, a member or legal counsel of the Labor and Industrial Relations Commission, chairperson of the State Board of Mediation, or an administrative hearing commissioner hired prior to April 26, 2005.</li> </ul>  |
| <b>Normal retirement eligibility</b>  | <ul style="list-style-type: none"> <li>Age 62 with 12 years of service,</li> <li>Age 60 with 15 years of service, or</li> <li>Age 55 with 20 years of service.</li> </ul>  |
| <b>Reduced retirement eligibility</b> | <ul style="list-style-type: none"> <li>Age 65 with less than 12 years of service with reduced benefit, based upon years of service relative to 12 years.</li> </ul>  |
| <b>Benefit</b>                        | <ul style="list-style-type: none"> <li>Normal retirement eligibility               <ul style="list-style-type: none"> <li>- 50% of the average highest 12 consecutive months of salary.</li> </ul> </li> <li>Reduced retirement eligibility               <ul style="list-style-type: none"> <li>- <math>(\text{years of service} \div 12) \times 50\%</math> of the average 12 months of salary.</li> </ul> </li> </ul>       |
| <b>Vesting</b>                        | <ul style="list-style-type: none"> <li>Immediate.</li> </ul>   |
| <b>In-service COLA</b>                | <ul style="list-style-type: none"> <li>Not available.</li> </ul>   |
| <b>COLA</b>                           | <ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.</li> <li>If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.</li> </ul> |
| <b>Survivor benefit</b>               |  |
| Death before retirement               | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service relative to 12 years.</li> </ul>  |
| Death after retirement                | <ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.</li> </ul>   |

\* All new administrative law judges and legal advisors hired on or after April 26, 2005, who were not previously covered by a retirement system under Chapter 287, RSMo, participate in the MSEF, which is covered under Chapter 104, RSMo.

*Summary of Plan Provisions***JUDICIAL PLAN – JUNE 30, 2010**

| Plan Provision                        | Requirement  |
|---------------------------------------|--|
| <b>Membership eligibility</b>         | <ul style="list-style-type: none"> <li>• Must be a judge or commissioner of the supreme court or the court of appeals, a judge of the circuit court, probate court, magistrate court, court of common pleas, court of criminal corrections, a justice of the peace, or a commissioner or deputy commissioner of the circuit court appointed after February 29, 1972; a commissioner of the juvenile division of the circuit court appointed pursuant to Section 211.023, RSMo; a commissioner of the drug court pursuant to Section 478.466, RSMo; or a commissioner of the family court.</li> </ul> |
| <b>Normal retirement eligibility</b>  | <ul style="list-style-type: none"> <li>• Age 62 with 12 years of service,</li> <li>• Age 60 with 15 years of service, or</li> <li>• Age 55 with 20 years of service.</li> </ul>  |
| <b>Reduced retirement eligibility</b> | <ul style="list-style-type: none"> <li>• Age 62 with less than 12 years of service or age 60 with less than 15 years of service with a reduced benefit based on years of service relative to 12 or 15 years.</li> </ul>  |
| <b>Benefit</b>                        | <ul style="list-style-type: none"> <li>• Normal retirement eligibility <ul style="list-style-type: none"> <li>- 50% of the FAP</li> </ul> </li> <li>• Reduced retirement eligibility <ul style="list-style-type: none"> <li>- If between age 60 and 62<br/>(years of service ÷ 15) x 50% of compensation on the highest court served.</li> <li>- If age 62<br/>(years of service ÷ 12) x 50% of compensation on the highest court served.</li> </ul> </li> </ul>   |
| <b>Vesting</b>                        | <ul style="list-style-type: none"> <li>• Immediate.</li> </ul>   |
| <b>In-service COLA</b>                | <ul style="list-style-type: none"> <li>• Judges who are at least age 60 and work beyond the date first eligible for unreduced benefits will receive COLAs for each year worked beyond normal retirement eligibility. COLA provisions are determined by date of employment.</li> </ul>  |
| <b>COLA</b>                           | <ul style="list-style-type: none"> <li>• If hired before August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a minimum of 4% and a maximum of 5% until reaching 65% cap. Thereafter, the rate is based on 80% of the change in the CPI with maximum rate of 5%.</li> <li>• If hired on or after August 28, 1997, annual COLA is equal to 80% of the change in the CPI with a maximum rate of 5%.</li> </ul>   |
| <b>Survivor benefit</b>               |  |
| Death <b>before</b> retirement        | <ul style="list-style-type: none"> <li>• Survivor benefit to eligible spouse equal to 50% of the benefit the member would have received based on service to age 70.</li> </ul>   |
| Death <b>after</b> retirement         | <ul style="list-style-type: none"> <li>• Survivor benefit to eligible spouse equal to 50% of the member's annuity at the time of death.</li> </ul>   |

*Summary of Plan Provisions***LIFE INSURANCE PLANS – JUNE 30, 2010**

MOSERS administers basic and optional term life insurance plans for eligible state employees and retirees.

**Active Members\***

| Plan Provision   | Requirement  |
|--|--|
| <ul style="list-style-type: none"> <li>• <b>Basic life insurance</b> - An amount equal to one times annual salary (with a minimum of \$15,000) while actively employed.</li> </ul>   | <ul style="list-style-type: none"> <li>• Actively employed in an eligible state position resulting in membership in MOSERS.</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>Duty-related death benefit</b> - Duty-related death benefit equivalent to two times the annual salary the member was earning at the time of death in addition to the basic life insurance amount of one times annual salary.</li> </ul>  | <ul style="list-style-type: none"> <li>• Actively employed in an eligible state position resulting in membership in MOSERS.</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>Optional life insurance</b> - Additional life insurance may be purchased in a flat amount in multiples of \$10,000 not to exceed the maximum (lesser of six times annual salary or \$800,000). Spouse coverage may be purchased in multiples of \$10,000 up to a maximum of \$100,000; however, the amount of spouse coverage cannot exceed the amount of optional life insurance coverage the member has purchased. Coverage for children is available in a flat amount of \$10,000 per child.</li> </ul> | <ul style="list-style-type: none"> <li>• Actively employed in an eligible state position resulting in membership in MOSERS.</li> </ul> |

\* Terminating employees may convert coverage up to the amount they had as an active employee at individual rates.

**Retired Members**

| Plan Provision  | Requirement  |
|---|--|
| <ul style="list-style-type: none"> <li>• <b>Basic life insurance at retirement</b> - \$5,000 basic life insurance during retirement.</li> </ul>   | <ul style="list-style-type: none"> <li>• Must retire directly from active employment.</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>Optional life insurance at retirement (MSEP)</b> - An employee may retain up to the lesser of \$60,000 or the amount of optional life insurance coverage held at the time of retirement at the group rate and may convert any remaining basic and optional life insurance at individual rates.</li> </ul>   | <ul style="list-style-type: none"> <li>• Must retire directly from active employment.</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>Optional life insurance at retirement (MSEP 2000)</b> - Under “Rule of 80”, an employee may retain the current amount of coverage prior to retirement until age 62 at which time coverage is reduced to \$60,000, and may convert any remaining basic and optional life insurance at individual rates. Coverage for spouse and/or children ends at member’s retirement and may be converted at individual rates.</li> </ul> | <ul style="list-style-type: none"> <li>• Must retire directly from active employment.</li> </ul> |

*Summary of Plan Provisions***LONG-TERM DISABILITY (LTD) PLANS – JUNE 30, 2010**

MOSERS administers the LTD Plan for eligible state employees who become disabled during active employment.

**Active Members**

| <b>Classification</b>  | <b>Requirement</b>   |
|--|--|
| <ul style="list-style-type: none"> <li>• <b>General state employees, legislators, and elected state officials</b> - Members of MOSERS in a position normally requiring 1,040 hours of work a year are covered under the LTD plan, unless they work for a state agency which has its own LTD plan.</li> </ul> | <ul style="list-style-type: none"> <li>• Eligible participants receive 60% of their compensation minus primary social security, workers' compensation, and employer provided income. Benefits commence after 90 days of disability or after sick leave expires, whichever occurs last. LTD benefits cease upon the earliest of (i) when disability ends, (ii) when the member is first eligible for normal retirement benefits or is receiving early retirement benefits, (iii) when the member returns to work, or (iv) upon a member's death.</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>Water patrol</b></li> </ul>  | <ul style="list-style-type: none"> <li>• Uniformed members who are eligible for statutory occupational disability receive benefits equal to 50% of compensation with no offset for social security at the time of disability. For nonoccupational disabilities, eligible participants receive the same benefit as general employees.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• <b>Judges</b></li> </ul>  | <ul style="list-style-type: none"> <li>• In addition to the disability benefits provided to general employees, judges also receive benefits under the state constitution. Participants receive 50% of salary until the current term expires.</li> </ul>  |



## CHANGES IN PLAN PROVISIONS

### House Bill 1

In July 2010, House Bill 1 was enacted which created a new tier defined benefit plan for future state employees first hired on or after January 1, 2011. The new tier plan will include all new employees first hired on or after January 1, 2011, as members of the MSEP 2000 (which includes the General Employee Plan, the Legislative Plan, and the Statewide Elected Official Plan) and the Judicial Plan. The tables on the following page illustrate the differences in the current level of benefits afforded to state employees as compared to the new tier defined benefit plan for members of the MSEP 2000 and Judicial Plan hired on or after January 1, 2011.

This legislation will change normal retirement eligibility for most classifications to coincide with the current ultimate minimum eligibility age of 67 for unreduced social security benefits for those born after 1959. "Rule of 80" is increased to a "Rule of 90" and the corresponding minimum eligibility age is increased from age 48 to age 55. The age for early retirement for general employees is increased from age 57 to age 62 (option available with a reduction).

The legislation increases five-year vesting to ten-year vesting for general employees and establishes member contributions for all classifications equivalent to 4% of pay on a pretax basis; 4% interest is paid on member accounts at the end of the fiscal year based on the beginning fiscal year balance. Refunds are payable after

90 days of termination for those qualifying for refunds. Member contributions and interest are fully refundable and portable, including for nonvested employees who terminate and leave state service.

The legislation also eliminates subsidized service purchases for all employee classifications. This includes the elimination of purchases of military and other full-time, nonfederal, governmental service. In addition, the portability provision that was enacted in the MSEP 2000 is eliminated as well as the BackDROP provision that was enacted in 2002.

As it pertains to judges, in addition to the changes outlined elsewhere regarding normal and early retirement eligibility, member contributions, and service purchases, the legislation will eliminate the unreduced Joint and 50% Survivor Option and in-service COLA provisions presently available in the Judicial Plan in order to mirror the changes that were adopted in the MSEP 2000 for the general population. This legislation will also preclude a retired judge under the new tier plan who returns to work in a benefit eligible position covered under the closed plan or year 2000 plan under Chapter 104, RSMo, from receiving an annuity from the judicial plan while simultaneously working in a benefit eligible position. Such a retired judge will, however, be eligible to accrue service under the other plan. This change also mirrors the provisions adopted in the MSEP 2000 covering the general population.

### HB 1868

This legislation contains provisions that transfer the powers and duties of the State Water Patrol to the newly established Division of Water Patrol within the State Highway Patrol. As it affects MOSERS, employees who are earning creditable service under the MSEP (closed plan) or the MSEP 2000 must elect, within 90 days of January 1, 2011, to either remain in those plans or to transfer membership and creditable service to the closed plan or the Year 2000 Plan administered by MPERS. In addition, an employee who elects to transfer service must acknowledge and agree that such election is irrevocable and constitutes a waiver to receive retirement, life insurance, disability benefits, and medical benefits except as provided by the system elected by the employee. In the event an employee elects to transfer service, MOSERS is required to transfer to the MoDOT and Patrol Employees' Retirement System by June 30, 2011, an amount actuarially determined to equal the liability (to the extent that liability is funded as of the most recent actuarial valuation) based on the actuarial value of assets, not to exceed 100%.

## MSEP 2011 – NEW TIERS FOR FUTURE NEW HIRES EMPLOYED ON OR AFTER JANUARY 1, 2011

**General Employee Plan**

| Plan Provision                | Present Benefits   | New Tier Benefits  |
|-------------------------------|--|--|
| Normal retirement eligibility | <ul style="list-style-type: none"> <li>• Age 62 with 5 years of service, or</li> <li>• Age 48 “Rule of 80.”</li> </ul>   | <b>General Employees</b> <ul style="list-style-type: none"> <li>• Age 67 with 10 years of service, or</li> <li>• Age 55 “Rule of 90.”</li> </ul> <b>Highway Patrol</b> <ul style="list-style-type: none"> <li>• Age 60 and active, or</li> <li>• Age 55 with 10 years of service.</li> </ul> |
| Early retirement eligibility  | <ul style="list-style-type: none"> <li>• Age 57 with 5 years of service.</li> </ul>  | <b>General Employees</b> <ul style="list-style-type: none"> <li>• Age 62 with 10 years of service (with reduction).</li> </ul>   |
| Vesting                       | <ul style="list-style-type: none"> <li>• 5 years of service.</li> </ul>  | <ul style="list-style-type: none"> <li>• 10 years of service.</li> </ul>   |
| Member contributions          | <ul style="list-style-type: none"> <li>• None.</li> </ul>  | <ul style="list-style-type: none"> <li>• 4% of pay (with interest on refunds).</li> </ul>  |
| Purchased service             | <ul style="list-style-type: none"> <li>• Subsidized military and other full-time, nonfederal, governmental service.</li> </ul>   | <ul style="list-style-type: none"> <li>• No service purchases.</li> </ul>  |
| BackDROP                      | <ul style="list-style-type: none"> <li>• Allows an employee to receive a lump sum payment at retirement in exchange for a reduced monthly benefit for life.</li> </ul> | <ul style="list-style-type: none"> <li>• No BackDROP.</li> </ul>   |

**Statewide Elected Official Plan**

| Plan Provision                | Present Benefits   | New Tier Benefits  |
|-------------------------------|--|--|
| Normal retirement eligibility | <ul style="list-style-type: none"> <li>• Age 55 with 4 years of service, or</li> <li>• Age 50 “Rule of 80.”</li> </ul>         | <ul style="list-style-type: none"> <li>• Age 62 with 4 years of service, or</li> <li>• Age 55 “Rule of 90.”</li> </ul> |
| Member contributions          | <ul style="list-style-type: none"> <li>• No member contributions.</li> </ul>   | <ul style="list-style-type: none"> <li>• 4% of pay (with interest on refunds).</li> </ul>                              |
| Purchased service             | <ul style="list-style-type: none"> <li>• Subsidized military and other full-time, nonfederal, governmental service.</li> </ul> | <ul style="list-style-type: none"> <li>• No subsidized service purchases.</li> </ul>                                   |

**Legislative Plan**

| Plan Provision                | Present Benefits   | New Tier Benefits   |
|-------------------------------|--|---|
| Normal retirement eligibility | <ul style="list-style-type: none"> <li>• Age 55 with 3 biennial assemblies</li> <li>• Age 50 “Rule of 80.”</li> </ul>          | <ul style="list-style-type: none"> <li>• Age 62 with 3 biennial assemblies</li> <li>• Age 55 “Rule of 90.”</li> </ul> |
| Member contributions          | <ul style="list-style-type: none"> <li>• No member contributions.</li> </ul>   | <ul style="list-style-type: none"> <li>• 4% of pay (with interest on refunds).</li> </ul>                             |
| Purchased service             | <ul style="list-style-type: none"> <li>• Subsidized military and other full-time, nonfederal, governmental service.</li> </ul> | <ul style="list-style-type: none"> <li>• No subsidized service purchases.</li> </ul>                                  |

**Judicial Plan**

| Plan Provision                | Present Benefits   | New Tier Benefits  |
|-------------------------------|--|--|
| Normal retirement eligibility | <ul style="list-style-type: none"> <li>• Age 62 with 12 years of service</li> <li>• Age 60 with 15 years of service, or</li> <li>• Age 55 with 20 years of service.</li> </ul> | <ul style="list-style-type: none"> <li>• Age 67 with 12 years of service, or</li> <li>• Age 62 with 20 years of service.</li> </ul>                        |
| Early retirement eligibility  | <ul style="list-style-type: none"> <li>• Age 60 with less than 15 years of service, or</li> <li>• Age 62 with greater than 12 years of service.</li> </ul>                     | <ul style="list-style-type: none"> <li>• Age 67 with less than 12 years of service, or</li> <li>• Age 62 with greater than 20 years of service.</li> </ul> |
| Normal form of payment        | <ul style="list-style-type: none"> <li>• Unreduced 50% Survivor Option.</li> </ul>   | <ul style="list-style-type: none"> <li>• Single life (reduced survivor options).</li> </ul>  |
| Member contributions          | <ul style="list-style-type: none"> <li>• No member contributions.</li> </ul>   | <ul style="list-style-type: none"> <li>• 4% of pay (with interest on refunds).</li> </ul>  |
| In-service cola               | <ul style="list-style-type: none"> <li>• Members who work beyond age 60 have increased benefits upon retirement.</li> </ul>  | <ul style="list-style-type: none"> <li>• No in-service COLA.</li> </ul>  |
| Purchased service             | <ul style="list-style-type: none"> <li>• Subsidized military and other full-time, nonfederal, governmental service.</li> </ul>   | <ul style="list-style-type: none"> <li>• No subsidized service purchases.</li> </ul>   |

## ACTUARIAL PRESENT VALUES

### AS OF JUNE 30, 2010

#### MSEP

| Actuarial Present Value June 30, 2010 for  | Actuarial<br>Present Value | Portion Covered<br>by Future Normal<br>Cost Contributions | Actuarial<br>Accrued<br>Liabilities |
|--|----------------------------|---|-------------------------------------|
| <b>Active members</b>  |                            |   |                                     |
| Service retirement benefits based on services rendered before and likely to be rendered after valuation date | \$ 4,579,062,984           | \$ 712,859,880  | \$ 3,866,203,104                    |
| Disability benefits likely to be paid to present active members who become totally and permanently disabled  | 136,922,340                | 63,084,920  | 73,837,420                          |
| Survivor benefits likely to be paid to widows and children of present active members who die before retiring | 110,732,407                | 28,553,378  | 82,179,029                          |
| Separation benefits likely to be paid to present active members  | 474,062,155                | 225,901,116   | 248,161,039                         |
| Active member totals   | <u>\$ 5,300,779,886</u>    | <u>\$ 1,030,399,294</u>                                   | <u>4,270,380,592</u>                |
| <b>Members on leave of absence &amp; LTD</b>   |                            |   |                                     |
| Service retirement benefits based on service rendered before the valuation date                              |                            |   | 109,376,026                         |
| <b>Terminated-vested members</b>   |                            |   |                                     |
| Service retirement benefits based on service rendered before the valuation date                              |                            |   | 460,721,058                         |
| <b>Retired lives</b>   |                            |   | 5,012,014,253                       |
| <b>BackDROP installment payments incurred, but not yet paid</b>  |                            |   | 663,516                             |
| <b>Total actuarial accrued liability</b>   |                            |   | <u>9,853,155,445</u>                |
| <b>Actuarial value of assets</b>   |                            |   | <u>7,923,377,393</u>                |
| <b>Unfunded actuarial accrued liability</b>  |                            |   | <u>\$ 1,929,778,052</u>             |

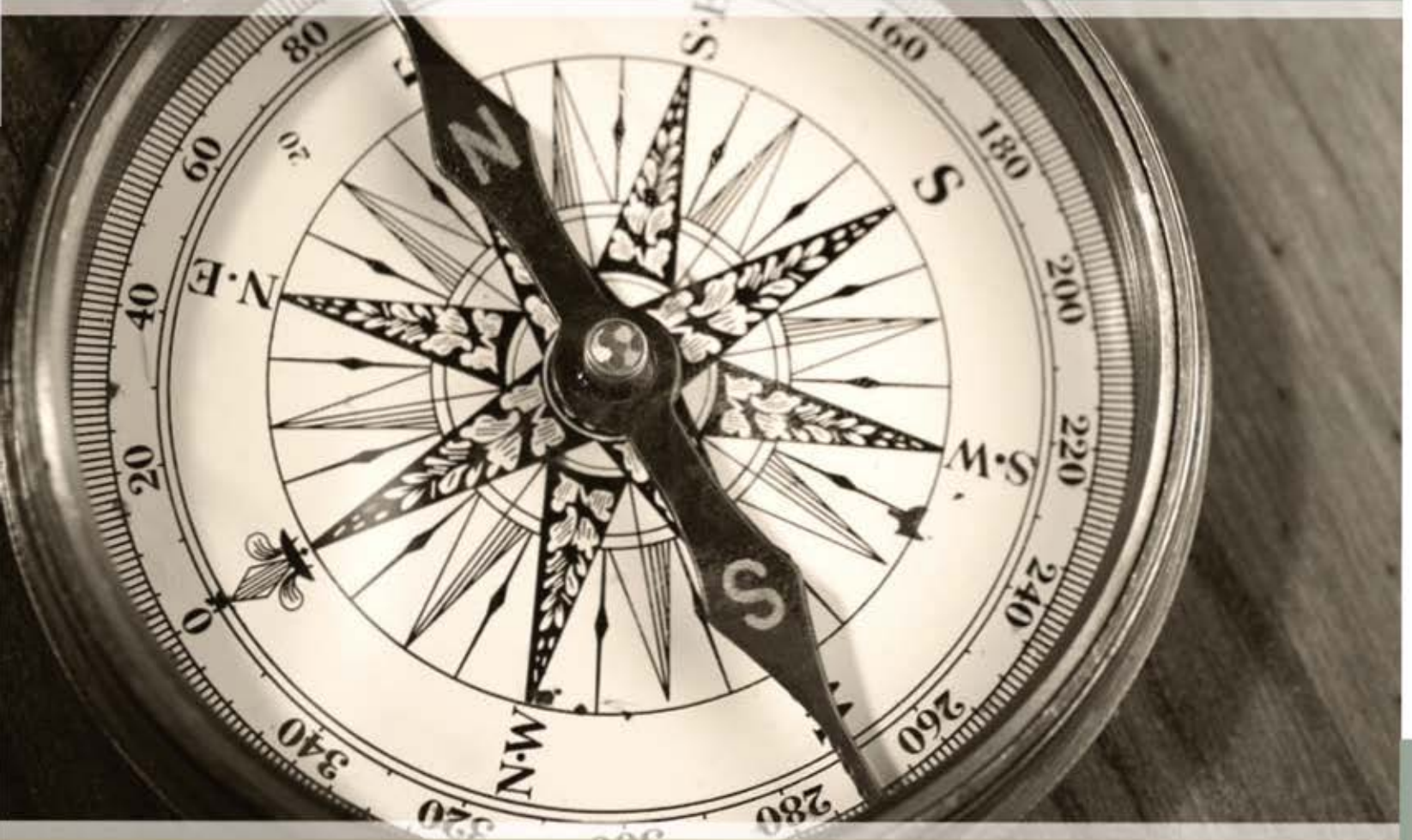
#### Judicial Plan

| Actuarial Present Value June 30, 2010 for  | Actuarial<br>Present Value | Portion Covered<br>by Future Normal<br>Cost Contributions | Actuarial<br>Accrued<br>Liabilities |
|--|----------------------------|---|-------------------------------------|
| <b>Active members</b>  |                            |   |                                     |
| Service retirement benefits based on services rendered before and likely to be rendered after valuation date | \$ 184,184,349             | \$ 52,983,897   | \$ 131,200,452                      |
| Disability benefits likely to be paid to present active members who become totally and permanently disabled  | 801,982                    | 787,572   | 14,410                              |
| Survivor benefits likely to be paid to widows and children of present active members who die before retiring | 5,462,044                  | 3,055,828   | 2,406,216                           |
| Active member totals   | <u>\$ 190,448,375</u>      | <u>\$ 56,827,297</u>                                      | <u>133,621,078</u>                  |
| <b>Retired lives</b>   |                            |   | 236,113,077                         |
| <b>Terminated-vested members</b>   |                            |   | 12,278,618                          |
| <b>Members on LTD</b>  |                            |   | 0                                   |
| <b>Total actuarial accrued liability</b>   |                            |   | <u>382,012,773</u>                  |
| <b>Actuarial value of assets</b>   |                            |   | <u>88,976,738</u>                   |
| <b>Unfunded actuarial accrued liability</b>  |                            |   | <u>\$ 293,036,035</u>               |

# EXPLORATION

Each day brings new questions, possibilities and innovations that will shape the course of history. The road to future financial security is taking a new direction but the essence of retirement remains the same. MOSERS is focused on embracing new ideas and innovative opportunities that will lead our members down the road to a prosperous tomorrow.

*Discover the direction of endless possibilities*





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| Total Benefits Payable June 30, 2010 - Tabulated by Attained Ages of Benefit Recipients ..... | 154 |

## STATISTICAL SECTION



## SUMMARY

### Plan Membership

Membership in the pension trusts administered by MOSERS increased by 179. Active members decreased by 1,574, retired members and their beneficiaries increased by 1,616, and terminated-vested members increased by 137. Membership data for the last ten years ended June 30, 2010, can be found on page 141. Page 144 depicts the location of benefit recipients, showing that the majority remain in the state of Missouri after retirement.

### Net Assets vs. Liabilities

The charts on pages 136-139 graphically represent the funding progress of the pension plans for the ten years ended June 30, 2010. The area charts in the middle of the pages show the portion of the pension liabilities that are unfunded compared to the portion covered by assets in the trust funds. The charts on the bottom of the pages illustrate the funded ratio of the plans for the ten years ended June 30, 2010.

The existence of the unfunded actuarial accrued liabilities is not necessarily an indication of financial problems, but the fluctuations are important and must be monitored and controlled.

The remainder of this section contains various statistical and historical data considered useful in evaluating the condition of the plans.

All nonaccounting data is taken from MOSERS' internal sources except for that information which is derived from the actuarial valuations (pages 136-141, 145, and 154-155). Member data may differ between some schedules since the valuations are performed using data as of May 31 each year.



# CHANGES IN NET ASSETS

## LAST TEN FISCAL YEARS

|                                       | FY01                    | FY02                    | FY03                  | FY04                  |
|---------------------------------------|-------------------------|-------------------------|-----------------------|-----------------------|
| <b>MSEP</b>                           |                         |                         |                       |                       |
| <b>Additions</b>                      |                         |                         |                       |                       |
| Employer contributions                | \$ 215,750,128          | \$ 209,515,026          | \$ 156,576,150        | \$ 164,691,836        |
| Member service purchases              | 1,918,572               | 3,913,426               | 3,690,820             | 3,426,367             |
| Service transfers in                  | 167,640                 | 48,840                  | 53,119                | 166,510               |
| Investment income (net of expenses)   | (112,164,123)           | (348,106,057)           | 332,901,027           | 873,793,645           |
| Other                                 | 418,663                 | 447,462                 | 437,574               | 469,959               |
| Total additions to plan net assets    | 106,090,880             | (134,181,303)           | 493,658,690           | 1,042,548,317         |
| <b>Deductions</b>                     |                         |                         |                       |                       |
| Benefits                              | 217,862,853             | 268,480,982             | 319,607,447           | 367,248,099           |
| Refunds                               | 0                       | 0                       | 4,019                 | 8,585                 |
| Service transfers out                 | 31,482                  | 27,970                  | 2,191,487             | 529,177               |
| Administrative expenses               | 5,749,965               | 5,753,812               | 5,954,365             | 5,694,082             |
| Total deductions from plan net assets | 223,644,300             | 274,262,764             | 327,757,318           | 373,479,943           |
| Transfer from ALJLAP plan             | 0                       | 0                       | 0                     | 0                     |
| <b>Change in net assets</b>           | <b>\$ (117,553,420)</b> | <b>\$ (408,444,067)</b> | <b>\$ 165,901,372</b> | <b>\$ 669,068,374</b> |
| <b>ALJLAP Plan</b>                    |                         |                         |                       |                       |
| <b>Additions</b>                      |                         |                         |                       |                       |
| Employer contributions                | \$ 1,074,946            | \$ 1,072,562            | \$ 951,023            | \$ 945,950            |
| Investment income (net of expenses)   | (273,380)               | (874,249)               | 862,381               | 2,344,262             |
| Other                                 | 1,020                   | 1,124                   | 1,134                 | 1,261                 |
| Total additions to plan net assets    | 802,586                 | 199,437                 | 1,814,538             | 3,291,473             |
| <b>Deductions</b>                     |                         |                         |                       |                       |
| Benefits                              | 776,422                 | 836,615                 | 969,918               | 1,003,355             |
| Administrative expenses               | 14,015                  | 14,450                  | 15,425                | 15,276                |
| Total deductions from plan net assets | 790,437                 | 851,065                 | 985,343               | 1,018,631             |
| Transfer to MSEP plan                 | 0                       | 0                       | 0                     | 0                     |
| <b>Change in net assets</b>           | <b>\$ 12,149</b>        | <b>\$ (651,628)</b>     | <b>\$ 829,195</b>     | <b>\$ 2,272,842</b>   |
| <b>Judicial Plan</b>                  |                         |                         |                       |                       |
| <b>Additions</b>                      |                         |                         |                       |                       |
| Employer contributions                | \$ 22,473,913           | \$ 22,088,485           | \$ 20,802,140         | \$ 20,636,314         |
| Investment income (net of expenses)   | (391,124)               | (1,680,566)             | 1,932,815             | 5,800,076             |
| Other                                 | 1,460                   | 2,160                   | 2,541                 | 3,119                 |
| Total additions to plan net assets    | 22,084,249              | 20,410,079              | 22,737,496            | 26,439,509            |
| <b>Deductions</b>                     |                         |                         |                       |                       |
| Benefits                              | 15,010,098              | 15,943,642              | 16,870,011            | 17,658,269            |
| Administrative expenses               | 20,051                  | 27,778                  | 34,571                | 37,796                |
| Total deductions from plan net assets | 15,030,149              | 15,971,420              | 16,904,582            | 17,696,065            |
| <b>Change in net assets</b>           | <b>\$ 7,054,100</b>     | <b>\$ 4,438,659</b>     | <b>\$ 5,832,914</b>   | <b>\$ 8,743,444</b>   |
| <b>Internal Service Fund</b>          |                         |                         |                       |                       |
| <b>Operating revenues</b>             |                         |                         |                       |                       |
| Premium receipts                      | \$ 23,185,529           | \$ 24,753,708           | \$ 25,223,043         | \$ 25,771,703         |
| Deferred compensation receipts        | 0                       | 0                       | 0                     | 0                     |
| Miscellaneous income                  | 464,351                 | 436,489                 | 436,494               | 436,489               |
| Total operating revenues              | 23,649,880              | 25,190,197              | 25,659,537            | 26,208,192            |
| <b>Operating expenses</b>             |                         |                         |                       |                       |
| Premium disbursements                 | 22,480,704              | 24,675,520              | 25,169,883            | 25,736,083            |
| Deferred compensation disbursements   | 0                       | 0                       | 0                     | 0                     |
| Premium refunds                       | 704,825                 | 78,188                  | 53,160                | 35,620                |
| Administrative expenses               | 410,906                 | 439,232                 | 421,507               | 474,040               |
| Total operating expenses              | 23,596,435              | 25,192,940              | 25,644,550            | 26,245,743            |
| <b>Nonoperating revenues</b>          |                         |                         |                       |                       |
| Investment income                     | 81,717                  | 47,767                  | 31,179                | 24,353                |
| <b>Change in net assets</b>           | <b>\$ 135,162</b>       | <b>\$ 45,024</b>        | <b>\$ 46,166</b>      | <b>\$ (13,198)</b>    |

| FY05            | FY06           | FY07            | FY08             | FY09               | FY10           |
|-----------------|----------------|-----------------|------------------|--------------------|----------------|
| \$ 194,524,059  | \$ 227,233,195 | \$ 239,488,751  | \$ 249,770,156   | \$ 252,105,008     | \$ 251,226,187 |
| 4,122,001       | 3,072,315      | 3,460,923       | 3,085,133        | 3,235,999          | 3,576,954      |
| 29,397          | 161,613        | 172,936         | 38,069           | 28,075             | 10,009         |
| 727,341,314     | 728,526,971    | 1,283,573,438   | 108,497,467      | (1,508,376,715)    | 859,898,512    |
| 1,231,658       | 501,512        | 542,266         | 572,274          | 619,060            | 639,901        |
| 927,248,429     | 959,495,606    | 1,527,238,314   | 361,963,099      | (1,252,388,573)    | 1,115,351,563  |
| 367,431,297     | 400,169,563    | 447,240,771     | 479,853,891      | 511,466,555        | 543,284,289    |
| 0               | 1,341          | 0               | 0                | 0                  | 3,106          |
| 199,201         | 133,866        | 51,980          | 251,443          | 0                  | 462,970        |
| 6,228,609       | 6,486,597      | 6,689,710       | 6,950,878        | 7,088,483          | 7,064,544      |
| 373,859,107     | 406,791,367    | 453,982,461     | 487,056,212      | 518,555,038        | 550,814,909    |
| 18,157,148      | 0              | 0               | 0                | 0                  | 0              |
| \$ 571,546,470  | \$ 552,704,239 | \$1,073,255,853 | \$ (125,093,113) | \$ (1,770,943,611) | \$ 564,536,654 |
| \$ 1,124,924    | \$ 0           | \$ 0            | \$ 0             | \$ 0               | \$ 0           |
| 2,057,375       | 0              | 0               | 0                | 0                  | 0              |
| 3,484           | 0              | 0               | 0                | 0                  | 0              |
| 3,185,783       | 0              | 0               | 0                | 0                  | 0              |
| 749,197         | 0              | 0               | 0                | 0                  | 0              |
| 17,618          | 0              | 0               | 0                | 0                  | 0              |
| 766,815         | 0              | 0               | 0                | 0                  | 0              |
| (18,157,148)    | 0              | 0               | 0                | 0                  | 0              |
| \$ (15,738,180) | \$ 0           | \$ 0            | \$ 0             | \$ 0               | \$ 0           |
| \$ 21,852,985   | \$ 22,401,569  | \$ 23,745,467   | \$ 26,215,309    | \$ 27,725,882      | \$ 27,029,198  |
| 5,409,107       | 5,933,531      | 11,356,312      | 1,043,940        | (15,847,382)       | 9,909,718      |
| 9,160           | 4,085          | 4,798           | 5,506            | 6,504              | 7,374          |
| 27,271,252      | 28,339,185     | 35,106,577      | 27,264,755       | 11,885,004         | 36,946,290     |
| 18,396,397      | 19,091,587     | 20,595,504      | 22,058,085       | 23,232,088         | 24,230,545     |
| 46,321          | 52,830         | 59,187          | 66,880           | 74,473             | 81,414         |
| 18,442,718      | 19,144,417     | 20,654,691      | 22,124,965       | 23,306,561         | 24,311,959     |
| \$ 8,828,534    | \$ 9,194,768   | \$ 14,451,886   | \$ 5,139,790     | \$ (11,421,557)    | \$ 12,634,331  |
| \$ 27,305,305   | \$ 26,415,236  | \$ 27,101,931   | \$ 27,957,666    | \$ 28,990,057      | \$ 29,098,799  |
| 0               | 0              | 0               | 60,393,973       | 75,661,047         | 69,143,267     |
| 436,489         | 436,501        | 436,502         | 536,493          | 1,027,380          | 1,039,369      |
| 27,741,794      | 26,851,737     | 27,538,433      | 88,888,132       | 105,678,484        | 99,281,435     |
| 27,271,948      | 26,379,919     | 27,063,815      | 27,927,265       | 28,968,981         | 29,077,825     |
| 0               | 0              | 0               | 60,371,802       | 75,683,218         | 69,143,267     |
| 33,357          | 35,317         | 38,116          | 30,401           | 21,076             | 20,974         |
| 466,531         | 487,699        | 527,040         | 708,100          | 819,581            | 797,020        |
| 27,771,836      | 26,902,935     | 27,628,971      | 89,037,568       | 105,492,856        | 99,039,086     |
| 49,326          | 85,124         | 117,729         | 77,396           | 20,755             | 9,816          |
| \$ 19,284       | \$ 33,926      | \$ 27,191       | \$ (72,040)      | \$ 206,383         | \$ 252,165     |

## DEDUCTIONS FROM NET ASSETS FOR BENEFITS AND REFUNDS BY TYPE

### LAST TEN FISCAL YEARS

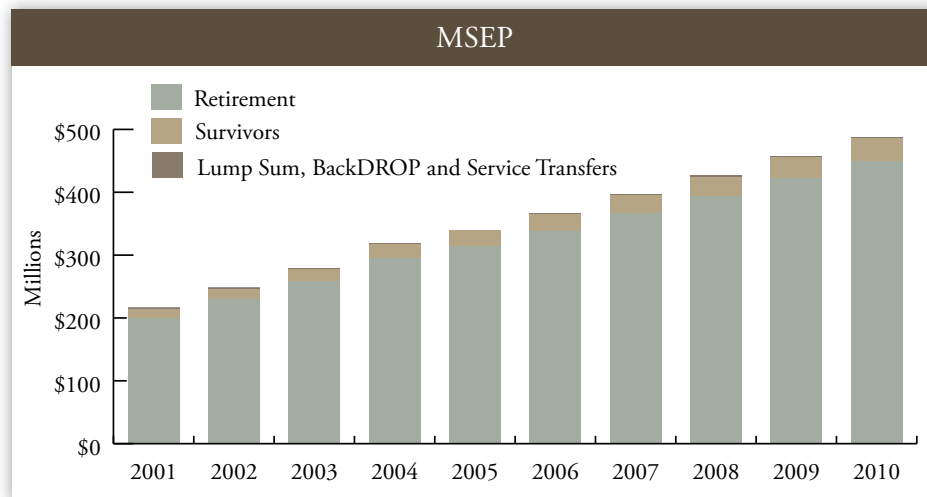
| MSEP                         |                |                |                |                |                |
|------------------------------|----------------|----------------|----------------|----------------|----------------|
|                              | FY01           | FY02           | FY03           | FY04           | FY05           |
| <b>Type of benefit</b>       |                |                |                |                |                |
| Retirement                   | \$ 199,479,082 | \$ 229,333,190 | \$ 257,883,204 | \$ 295,200,937 | \$ 314,623,851 |
| Survivors                    | 15,184,214     | 17,482,292     | 19,689,766     | 21,930,438     | 24,251,854     |
| Disability                   | 178,337        | 145,856        | 118,279        | 102,696        | 82,246         |
| Lump sum                     | 1,886,958      | 1,893,194      | 1,384,599      | 320,267        | 342,720        |
| BackDROP & service transfers | 1,134,262      | 19,626,450     | 40,531,599     | 49,693,761     | 28,130,626     |
| Total benefits               | \$ 217,862,853 | \$ 268,480,982 | \$ 319,607,447 | \$ 367,248,099 | \$ 367,431,297 |
| Refunds                      | \$ 0           | \$ 0           | \$ 4,019       | \$ 8,585       | \$ 0           |
|                              | FY06           | FY07           | FY08           | FY09           | FY10           |
| <b>Type of benefit</b>       |                |                |                |                |                |
| Retirement                   | \$ 338,449,307 | \$ 366,185,990 | \$ 393,328,057 | \$ 421,847,017 | \$ 448,880,110 |
| Survivors                    | 26,944,984     | 29,340,464     | 31,894,702     | 34,615,979     | 37,718,898     |
| Disability                   | 62,324         | 42,273         | 36,825         | 33,812         | 33,403         |
| Lump Sum                     | 459,398        | 556,568        | 454,643        | 272,189        | 409,788        |
| BackDROP & service transfers | 34,253,550     | 51,115,476     | 54,139,664     | 54,697,557     | 56,705,060     |
| Total benefits               | \$ 400,169,563 | \$ 447,240,771 | \$ 479,853,891 | \$ 511,466,554 | \$ 543,747,259 |
| Refunds                      | \$ 1,341       | \$ 0           | \$ 0           | \$ 0           | \$ 3,106       |

| ALJLAP*                |            |            |            |              |            |
|------------------------|------------|------------|------------|--------------|------------|
|                        | FY01       | FY02       | FY03       | FY04         | FY05       |
| <b>Type of benefit</b> |            |            |            |              |            |
| Retirement             | \$ 629,094 | \$ 680,391 | \$ 808,124 | \$ 840,963   | \$ 616,370 |
| Survivors              | 147,328    | 156,224    | 161,794    | 162,392      | 132,827    |
| Total benefits         | \$ 776,422 | \$ 836,615 | \$ 969,918 | \$ 1,003,355 | \$ 749,197 |

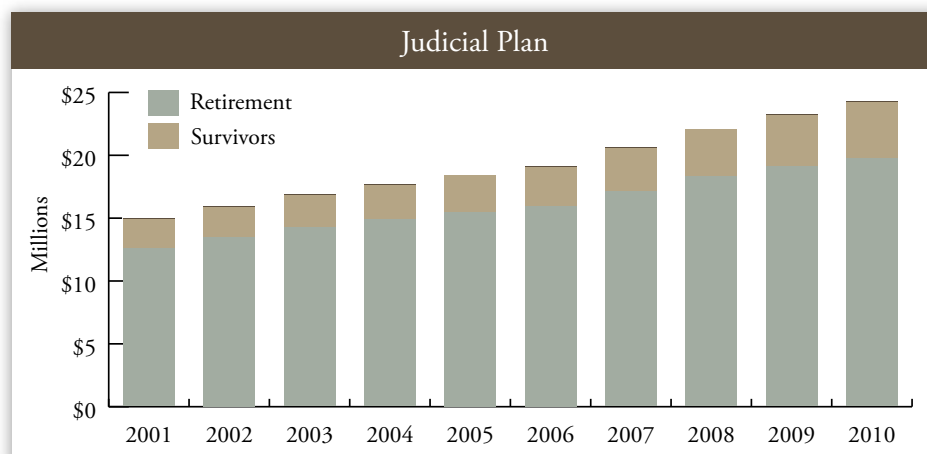
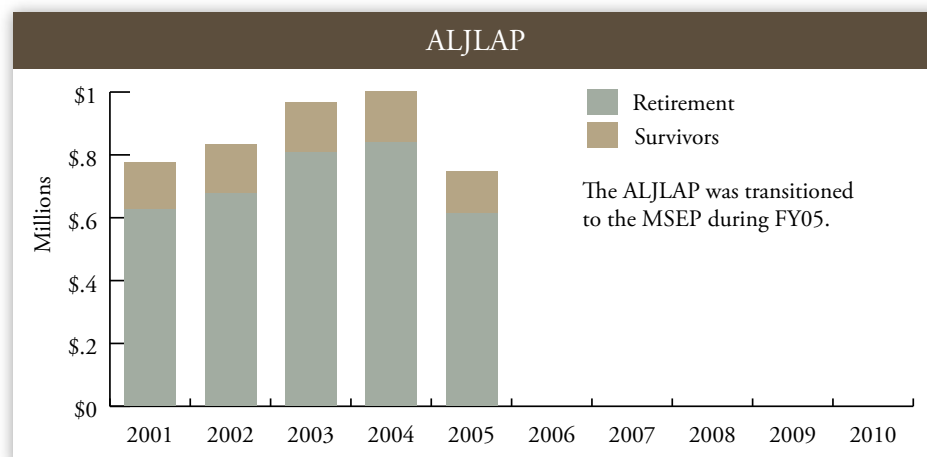
\* ALJLAP transitioned to the MSEP in FY05.

| Judicial Plan          |               |               |               |               |               |
|------------------------|---------------|---------------|---------------|---------------|---------------|
|                        | FY01          | FY02          | FY03          | FY04          | FY05          |
| <b>Type of benefit</b> |               |               |               |               |               |
| Retirement             | \$ 12,621,473 | \$ 13,525,249 | \$ 14,256,361 | \$ 14,913,678 | \$ 15,513,182 |
| Survivors              | 2,340,625     | 2,379,860     | 2,613,650     | 2,744,591     | 2,883,215     |
| Disability             | 48,000        | 38,533        | 0             | 0             | 0             |
| Total benefits         | \$ 15,010,098 | \$ 15,943,642 | \$ 16,870,011 | \$ 17,658,269 | \$ 18,396,397 |
|                        | FY06          | FY07          | FY08          | FY09          | FY10          |
| <b>Type of benefit</b> |               |               |               |               |               |
| Retirement             | \$ 15,989,341 | \$ 17,135,426 | \$ 18,342,676 | \$ 19,143,753 | \$ 19,784,720 |
| Survivors              | 3,070,746     | 3,433,078     | 3,715,409     | 4,088,335     | 4,445,825     |
| Disability             | 31,500        | 27,000        | 0             | 0             | 0             |
| Total benefits         | \$ 19,091,587 | \$ 20,595,504 | \$ 22,058,085 | \$ 23,232,088 | \$ 24,230,545 |

# DEDUCTIONS FROM NET ASSETS FOR BENEFITS AND REFUNDS BY TYPE LAST TEN FISCAL YEARS



Disability benefits are included, but amounts are too minimal to display visually in graph.



Disability benefits are included, but amounts are too minimal to display visually in graph.

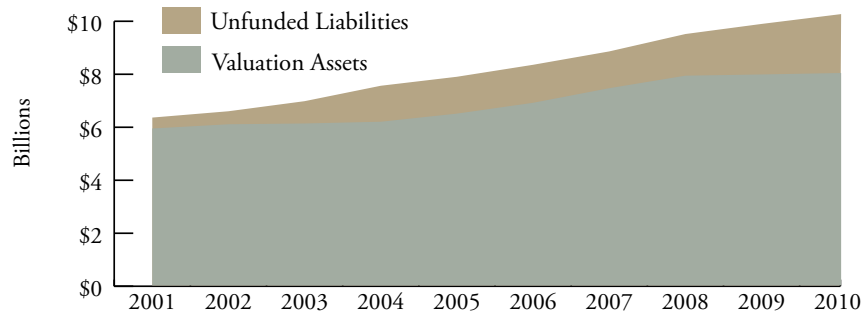
## VALUATION ASSETS VS. PENSION LIABILITIES

PENSION TRUST FUNDS - LAST TEN FISCAL YEARS

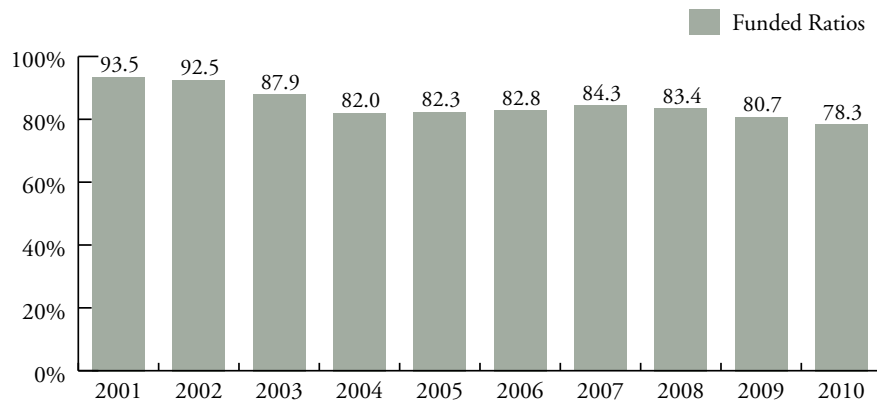
## All Plans Combined - Valuation Assets (smoothed market) vs. Pension Liabilities

| Fiscal Year | Dollars in Billions |                      |                     | Funded Ratios |
|-------------|---------------------|----------------------|---------------------|---------------|
|             | Valuation Assets    | Unfunded Liabilities | Accrued Liabilities |               |
| 2001        | \$5.9182            | \$0.4118             | \$6.3300            | 93.5%         |
| 2002        | 6.0780              | 0.4906               | 6.5686              | 92.5          |
| 2003        | 6.1075              | 0.8417               | 6.9492              | 87.9          |
| 2004        | 6.1735              | 1.3573               | 7.5308              | 82.0          |
| 2005        | 6.4795              | 1.3908               | 7.8703              | 82.3          |
| 2006        | 6.8883              | 1.4339               | 8.3222              | 82.8          |
| 2007        | 7.4392              | 1.3879               | 8.8271              | 84.3          |
| 2008        | 7.9117              | 1.5714               | 9.4831              | 83.4          |
| 2009        | 7.9574              | 1.9065               | 9.8639              | 80.7          |
| 2010        | 8.0124              | 2.2228               | 10.2352             | 78.3          |

## All Plans Combined - Actuarial Accrued Liabilities



## All Plans Combined - Valuation Assets as Percents of Pension Liabilities



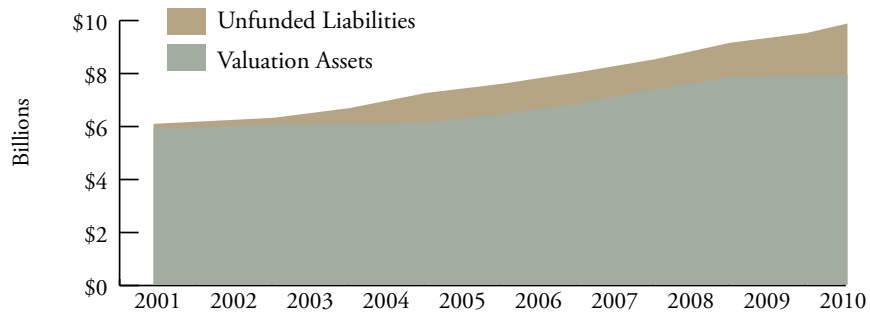
## VALUATION ASSETS VS. PENSION LIABILITIES

### PENSION TRUST FUNDS - LAST TEN FISCAL YEARS

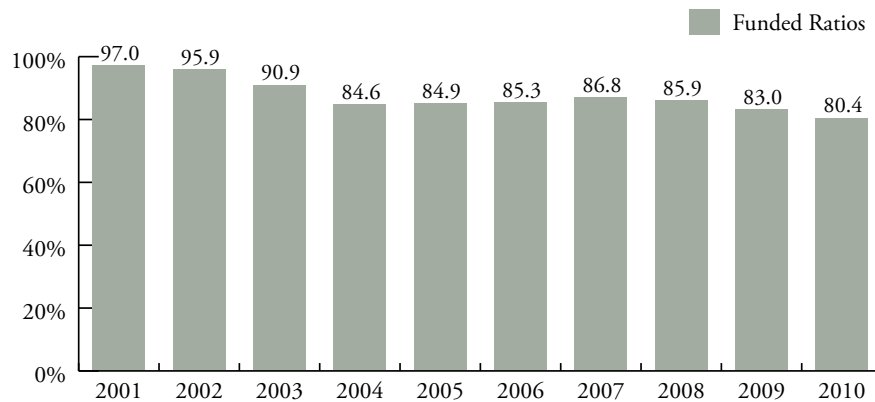
#### MSEP - Valuation Assets (smoothed market) vs. Pension Liabilities

| Fiscal Year | Dollars in Billions |                      |                     | Funded Ratios |
|-------------|---------------------|----------------------|---------------------|---------------|
|             | Valuation Assets    | Unfunded Liabilities | Accrued Liabilities |               |
| 2001        | \$5.8812            | \$0.1840             | \$6.0652            | 97.0%         |
| 2002        | 6.0331              | 0.2612               | 6.2943              | 95.9          |
| 2003        | 6.0573              | 0.6050               | 6.6623              | 90.9          |
| 2004        | 6.1182              | 1.1118               | 7.2300              | 84.6          |
| 2005        | 6.4353              | 1.1427               | 7.5780              | 84.9          |
| 2006        | 6.8366              | 1.1766               | 8.0132              | 85.3          |
| 2007        | 7.3773              | 1.1231               | 8.5004              | 86.8          |
| 2008        | 7.8385              | 1.2898               | 9.1283              | 85.9          |
| 2009        | 7.8761              | 1.6187               | 9.4948              | 83.0          |
| 2010        | 7.9234              | 1.9298               | 9.8532              | 80.4          |

#### MSEP - Actuarial Accrued Liabilities



#### MSEP - Valuation Assets as Percents of Pension Liabilities





## VALUATION ASSETS VS. PENSION LIABILITIES

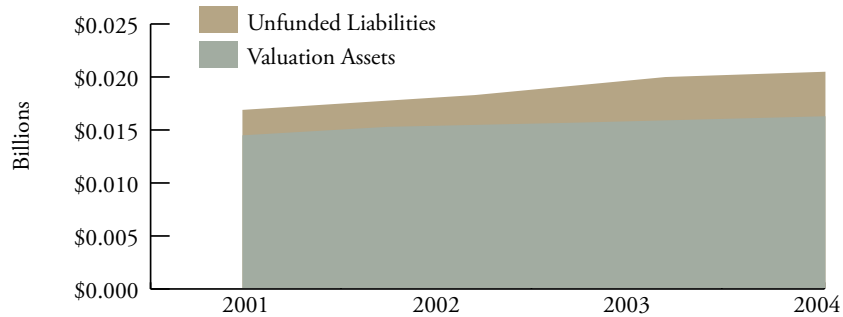
PENSION TRUST FUNDS - LAST TEN FISCAL YEARS

## ALJLAP\* - Valuation Assets (smoothed market) vs. Pension Liabilities

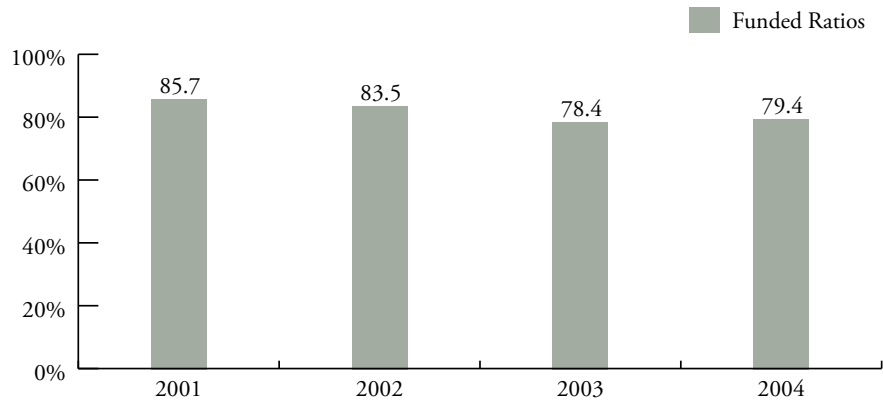
| Fiscal Year | Dollars in Billions |                      |                     | Funded Ratios |
|-------------|---------------------|----------------------|---------------------|---------------|
|             | Valuation Assets    | Unfunded Liabilities | Accrued Liabilities |               |
| 2001        | \$0.0144            | \$0.0024             | \$0.0168            | 85.7%         |
| 2002        | 0.0152              | 0.0030               | 0.0182              | 83.5          |
| 2003        | 0.0156              | 0.0043               | 0.0199              | 78.4          |
| 2004        | 0.0162              | 0.0042               | 0.0204              | 79.4          |

\* ALJLAP transitioned to the MSEP in FY05.

## ALJLAP - Actuarial Accrued Liabilities



## ALJLAP - Valuation Assets as Percents of Pension Liabilities



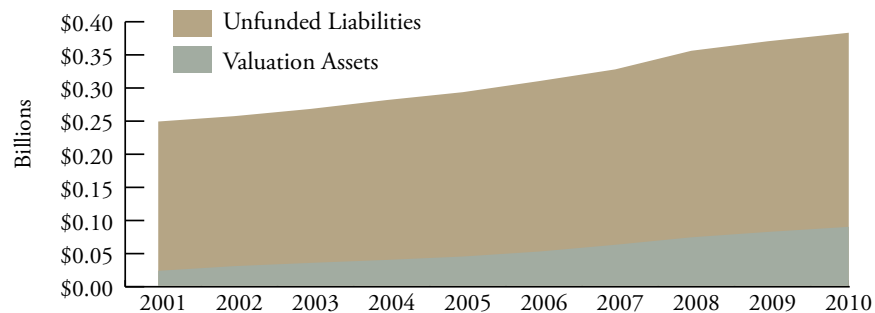
## VALUATION ASSETS VS. PENSION LIABILITIES

### PENSION TRUST FUNDS - LAST TEN FISCAL YEARS

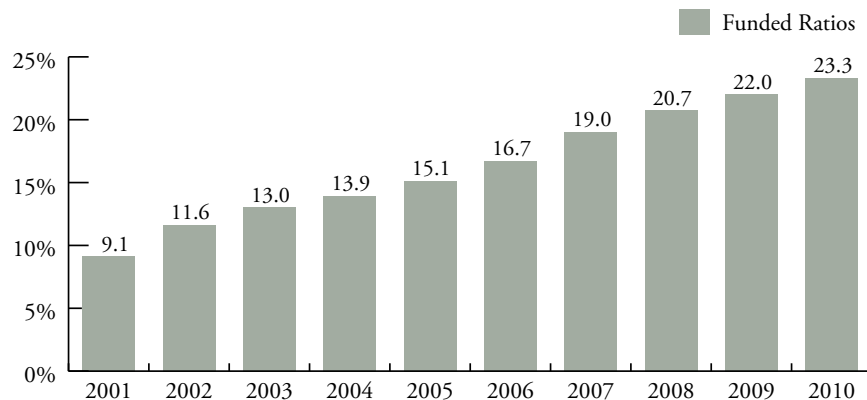
#### Judicial Plan - Valuation Assets (smoothed market) vs. Pension Liabilities

| Fiscal Year | Dollars in Billions |                      |                     | Funded Ratios |
|-------------|---------------------|----------------------|---------------------|---------------|
|             | Valuation Assets    | Unfunded Liabilities | Accrued Liabilities |               |
| 2001        | \$0.0226            | \$0.2254             | \$0.2480            | 9.1%          |
| 2002        | 0.0297              | 0.2264               | 0.2561              | 11.6          |
| 2003        | 0.0346              | 0.2324               | 0.2670              | 13.0          |
| 2004        | 0.0391              | 0.2413               | 0.2804              | 13.9          |
| 2005        | 0.0442              | 0.2481               | 0.2923              | 15.1          |
| 2006        | 0.0517              | 0.2573               | 0.3090              | 16.7          |
| 2007        | 0.0619              | 0.2648               | 0.3267              | 19.0          |
| 2008        | 0.0732              | 0.2816               | 0.3548              | 20.7          |
| 2009        | 0.0813              | 0.2878               | 0.3691              | 22.0          |
| 2010        | 0.0890              | 0.2930               | 0.3820              | 23.3          |

#### Judicial Plan - Actuarial Accrued Liabilities



#### Judicial Plan - Valuation Assets as Percents of Pension Liabilities



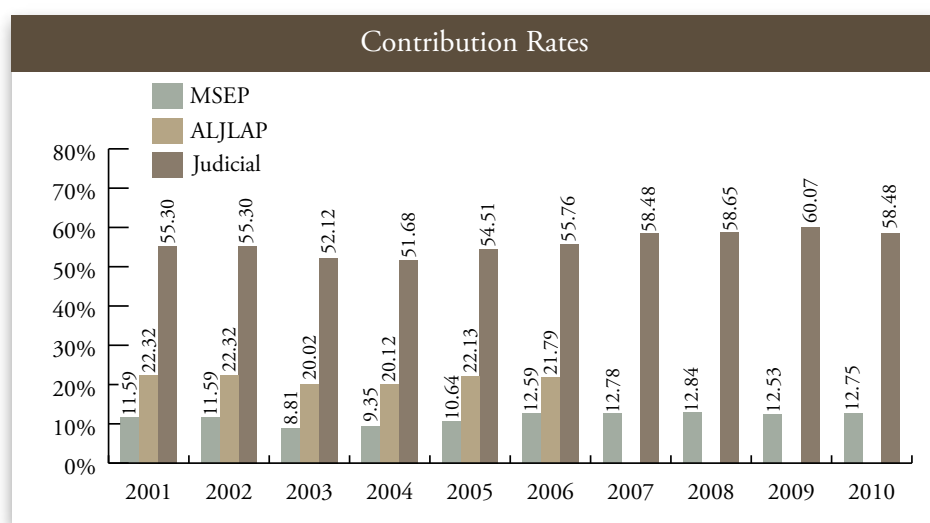
## CONTRIBUTION RATES

### LAST TEN FISCAL YEARS

#### Contribution Rates as a Percent of Payroll

| Fiscal Year | MSEP   | ALJLAP* | Judicial Plan |
|-------------|--------|---------|---------------|
| 2001        | 11.59% | 22.32%  | 55.30%        |
| 2002        | 11.59  | 22.32   | 55.30         |
| 2003        | 8.81   | 20.02   | 52.12         |
| 2004        | 9.35   | 20.12   | 51.68         |
| 2005        | 10.64  | 22.13   | 54.51         |
| 2006        | 12.59  | 21.79   | 55.76         |
| 2007        | 12.78  | 0.00    | 58.48         |
| 2008        | 12.84  | 0.00    | 58.65         |
| 2009        | 12.53  | 0.00    | 60.07         |
| 2010        | 12.75  | 0.00    | 58.48         |

\* ALJLAP included in MSEP beginning FY07.

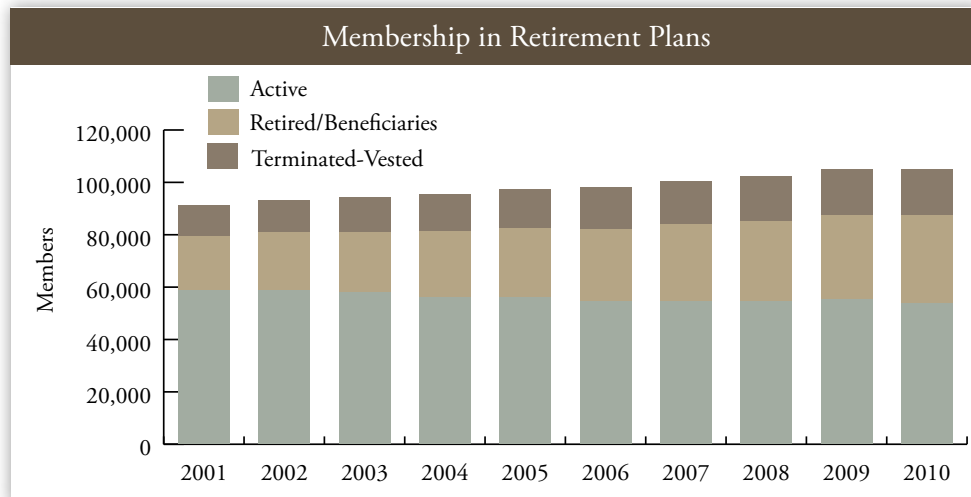


## MEMBERSHIP IN RETIREMENT PLANS

### LAST TEN FISCAL YEARS

#### Membership in Retirement Plans

| Fiscal Year | Active | Retired/Beneficiaries | Terminated-Vested | Totals  |
|-------------|--------|-----------------------|-------------------|---------|
| 2001        | 58,869 | 20,642                | 11,837            | 91,348  |
| 2002        | 59,066 | 21,910                | 12,339            | 93,315  |
| 2003        | 58,007 | 23,292                | 13,073            | 94,372  |
| 2004        | 56,362 | 25,179                | 13,898            | 95,439  |
| 2005        | 56,336 | 26,177                | 14,789            | 97,302  |
| 2006        | 54,887 | 27,450                | 15,829            | 98,166  |
| 2007        | 54,763 | 29,129                | 16,578            | 100,470 |
| 2008        | 54,943 | 30,572                | 17,123            | 102,638 |
| 2009        | 55,454 | 32,100                | 17,304            | 104,858 |
| 2010        | 53,880 | 33,716                | 17,441            | 105,037 |



## BENEFIT RECIPIENTS BY TYPE OF RETIREMENT AND OPTION SELECTED

JUNE 30, 2010

**MSEP**

| Amount of<br>Monthly Benefit | Number of<br>Benefit Recipients | Type of Retirement |       |       |       |   |   |     |
|------------------------------|---------------------------------|--------------------|-------|-------|-------|---|---|-----|
|                              |                                 | A                  | B     | C     | D     | E | F | G   |
| \$ 1-250                     | 4,060                           | 1,538              | 1,733 | 300   | 441   | 4 | 0 | 44  |
| 251-500                      | 5,766                           | 2,770              | 2,002 | 359   | 583   | 5 | 0 | 47  |
| 501-750                      | 4,523                           | 2,871              | 893   | 272   | 461   | 0 | 0 | 26  |
| 751-1000                     | 3,696                           | 2,881              | 369   | 156   | 274   | 0 | 0 | 16  |
| 1001-1250                    | 2,937                           | 2,481              | 169   | 87    | 193   | 0 | 0 | 7   |
| 1251-1500                    | 2,434                           | 2,158              | 75    | 77    | 121   | 0 | 0 | 3   |
| 1501-1750                    | 2,006                           | 1,834              | 33    | 44    | 93    | 0 | 0 | 2   |
| 1751-2000                    | 1,695                           | 1,574              | 25    | 28    | 66    | 0 | 0 | 2   |
| Over 2000                    | 6,490                           | 6,129              | 41    | 89    | 230   | 0 | 0 | 1   |
| Total                        | 33,607                          | 24,236             | 5,340 | 1,412 | 2,462 | 9 | 0 | 148 |

**Judicial Plan**

| Amount of<br>Monthly Benefit | Number of<br>Benefit Recipients | Type of Retirement |    |    |     |   |   |   |
|------------------------------|---------------------------------|--------------------|----|----|-----|---|---|---|
|                              |                                 | A                  | B  | C  | D   | E | F | G |
| \$ 1-250                     | 3                               | 0                  | 2  | 0  | 1   | 0 | 0 | 0 |
| 251-500                      | 11                              | 0                  | 8  | 0  | 2   | 0 | 0 | 1 |
| 501-750                      | 6                               | 0                  | 2  | 0  | 3   | 0 | 0 | 1 |
| 751-1000                     | 10                              | 0                  | 2  | 1  | 7   | 0 | 0 | 0 |
| 1001-1250                    | 6                               | 0                  | 4  | 1  | 0   | 0 | 0 | 1 |
| 1251-1500                    | 4                               | 0                  | 3  | 0  | 1   | 0 | 0 | 0 |
| 1501-1750                    | 6                               | 0                  | 3  | 3  | 0   | 0 | 0 | 0 |
| 1751-2000                    | 12                              | 1                  | 6  | 0  | 5   | 0 | 0 | 0 |
| Over 2000                    | 411                             | 255                | 35 | 30 | 90  | 0 | 0 | 1 |
| Total                        | 469                             | 256                | 65 | 35 | 109 | 0 | 0 | 4 |

**Type of Retirement**

- A Normal retirement
- B Early retirement
- C Survivor of active
- D Survivor of retired
- E Disability
- F Occupational disability (Water Patrol)
- G Ex-spouse

| Option Selected |     |     |     |       |    |       |       |    |        |
|-----------------|-----|-----|-----|-------|----|-------|-------|----|--------|
| 1               | 2   | 3   | 4   | 5     | 6  | 7     | 8     | 9  | 10     |
| 0               | 19  | 136 | 113 | 209   | 1  | 823   | 564   | 47 | 2,148  |
| 7               | 36  | 153 | 87  | 239   | 5  | 1,141 | 1,075 | 15 | 3,008  |
| 9               | 33  | 91  | 44  | 179   | 2  | 972   | 1,114 | 7  | 2,072  |
| 7               | 19  | 58  | 30  | 245   | 0  | 765   | 871   | 4  | 1,697  |
| 13              | 14  | 46  | 17  | 252   | 3  | 595   | 643   | 0  | 1,354  |
| 11              | 12  | 36  | 18  | 262   | 0  | 478   | 427   | 2  | 1,188  |
| 11              | 7   | 26  | 9   | 260   | 1  | 389   | 314   | 1  | 988    |
| 10              | 4   | 21  | 14  | 267   | 0  | 354   | 217   | 0  | 808    |
| 66              | 20  | 75  | 31  | 913   | 2  | 1,732 | 913   | 1  | 2,737  |
| 134             | 164 | 642 | 363 | 2,826 | 14 | 7,249 | 6,138 | 77 | 16,000 |

| Option Selected |   |   |   |    |   |   |   |   |    |
|-----------------|---|---|---|----|---|---|---|---|----|
| 1               | 2 | 3 | 4 | 5  | 6 | 7 | 8 | 9 | 10 |
| 3               | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  |
| 9               | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 2  |
| 3               | 0 | 0 | 0 | 2  | 0 | 0 | 0 | 0 | 1  |
| 4               | 0 | 0 | 0 | 3  | 0 | 0 | 0 | 0 | 3  |
| 4               | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 2  |
| 4               | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 0  |
| 3               | 0 | 0 | 0 | 0  | 0 | 0 | 0 | 0 | 3  |
| 9               | 0 | 0 | 0 | 2  | 0 | 0 | 0 | 0 | 1  |
| 372             | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 1 | 7  |
| 411             | 0 | 0 | 0 | 38 | 0 | 0 | 0 | 1 | 19 |

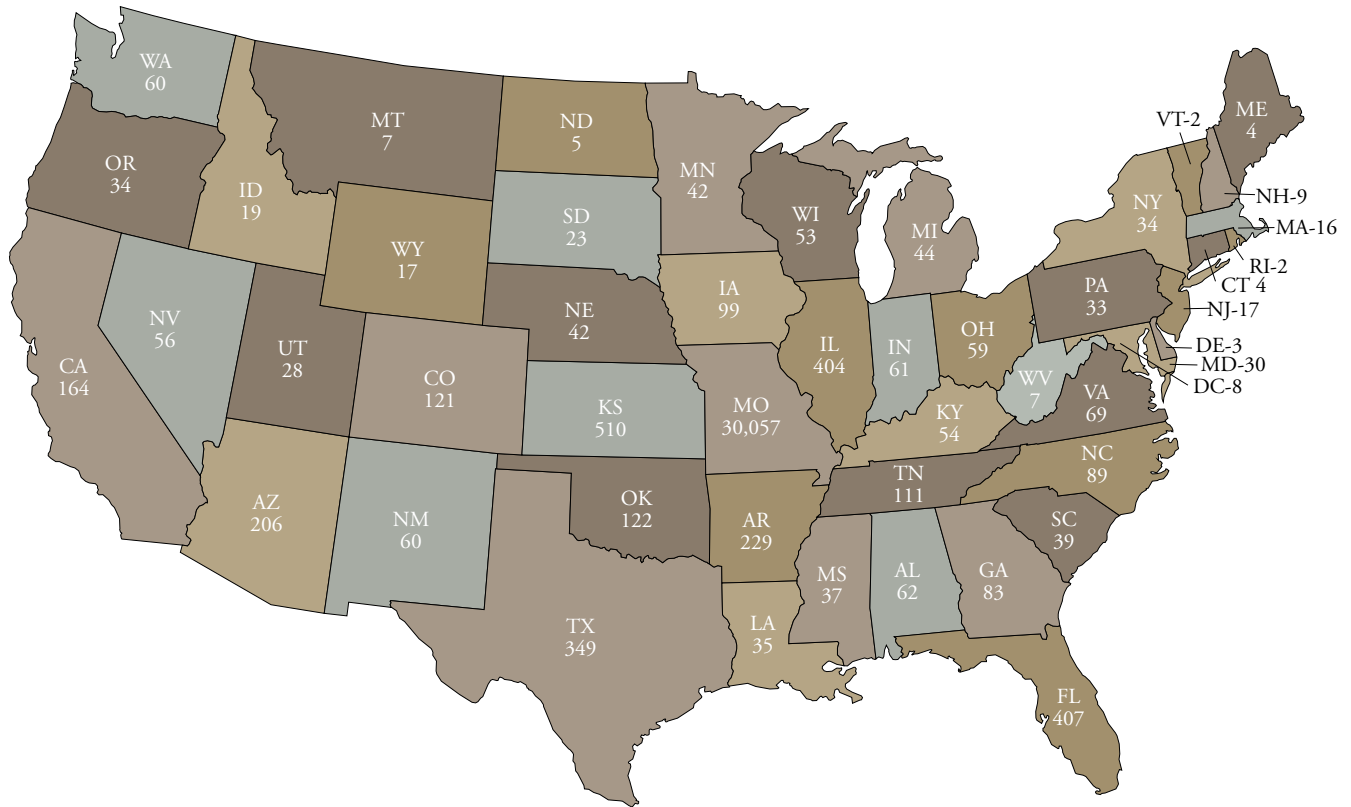
**Option Selected**

- 1 Automatic 50% joint & survivor
- 2 60-month guaranteed
- 3 120-month guaranteed
- 4 180-month guaranteed
- 5 50% joint & survivor
- 6 75% joint & survivor
- 7 100% joint & survivor
- 8 Unreduced 50% joint & survivor
- 9 Automatic minor survivor
- 10 No survivor option (includes pop-ups)



## DISTRIBUTION OF BENEFIT RECIPIENTS BY LOCATION

JUNE 30, 2010



## Benefit Recipients Outside the Continental United States

|                             |                          |
|-----------------------------|--------------------------|
| 8 - Alaska                  | 2 - Italy                |
| 4 - Hawaii                  | 1 - Mexico               |
| 3 - APO                     | 1 - P.R. China           |
| 1 - Argentina               | 1 - Panama               |
| 2 - Australia               | 2 - Philippines          |
| 1 - Bermuda                 | 1 - Puerto Rico          |
| 7 - Canada                  | 1 - Slovak Republic      |
| 1 - Colombia, South America | 1 - Sweden               |
| 1 - Costa Rica              | 1 - Thailand             |
| 2 - Germany                 | 1 - The Netherlands      |
| 1 - Guam                    | 1 - United Arab Emirates |
| 1 - Ireland                 | 3 - United Kingdom       |
| 1 - Israel                  | 1 - Wales UK             |

## BENEFITS PAYABLE JUNE 30, 2010

### TABULATED BY OPTION AND TYPE OF BENEFIT

#### MSEP

| Type of Benefit              | Number | Annual Benefits | Average Annual Benefits |
|------------------------------|--------|-----------------|-------------------------|
| <b>Service retirement</b>    |        |                 |                         |
| Life annuity                 | 4,898  | \$ 57,079,846   | \$ 11,654               |
| 50% joint and survivor       | 5,160  | 80,109,451      | 15,525                  |
| 75% joint and survivor       | 2      | 41,616          | 20,808                  |
| 100% joint and survivor      | 2,519  | 46,058,649      | 18,284                  |
| 5-year certain and life      | 121    | 1,288,563       | 10,649                  |
| 10-year certain and life     | 119    | 1,129,113       | 9,488                   |
| Survivor beneficiary         | 2,062  | 21,860,298      | 10,602                  |
| Total                        | 14,881 | 207,567,536     | 13,948                  |
| <b>Disability retirement</b> | 10     | 33,876          | 3,388                   |
| <b>Death-in-service</b>      | 1,354  | 12,910,655      | 9,535                   |
| <b>Grand totals</b>          | 16,245 | \$ 220,512,067  | 13,574                  |

#### MSEP 2000

| Type of Benefit           | Number | Annual Benefits | Average Annual Benefits |
|---------------------------|--------|-----------------|-------------------------|
| <b>Service retirement</b> |        |                 |                         |
| Life annuity              | 10,674 | \$ 160,359,447  | \$ 15,023               |
| 50% joint and survivor    | 2,565  | 54,386,019      | 21,203                  |
| 100% joint and survivor   | 2,536  | 45,919,174      | 18,107                  |
| 5-year certain and life   | 39     | 569,613         | 14,605                  |
| 10-year certain and life  | 427    | 5,101,557       | 11,947                  |
| 15-year certain and life  | 310    | 2,776,066       | 8,955                   |
| Survivor beneficiary      | 396    | 3,868,438       | 9,769                   |
| Total                     | 16,947 | 272,980,314     | 16,108                  |
| <b>Death-in-service</b>   | 59     | 159,852         | 2,709                   |
| <b>Grand totals</b>       | 17,006 | \$ 273,140,166  | 16,061                  |

#### Judicial Plan

| Type of Benefit           | Number | Annual Benefits | Average Annual Benefits |
|---------------------------|--------|-----------------|-------------------------|
| <b>Service retirement</b> |        |                 |                         |
| 50% joint and survivor    | 321    | \$ 20,021,334   | \$ 62,372               |
| Survivor beneficiary      | 109    | 3,457,090       | 31,716                  |
| Total                     | 430    | 23,478,424      | 54,601                  |
| <b>Death-in-service</b>   | 35     | 1,060,480       | 30,299                  |
| <b>Grand totals</b>       | 465    | \$ 24,538,904   | 52,772                  |

## AVERAGE MONTHLY BENEFIT AMOUNTS

TEN YEARS ENDED JUNE 30, 2010

| Total MSEP                          |                              | Years Credited Service by Category |          |          |          |          |          |          | All<br>Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|----------|----------|----------|----------|----------------|
| Members Retiring During Fiscal Year |                              | <5                                 | 5-10     | 10-15    | 15-20    | 20-25    | 25-30    | 30+      |                |
| 2001                                | Average monthly benefit      | \$ 255                             | \$ 257   | \$ 433   | \$ 685   | \$ 973   | \$ 1,397 | \$ 1,751 | \$ 1,095       |
|                                     | Average final average salary | \$ 2,577                           | \$ 2,100 | \$ 2,134 | \$ 2,461 | \$ 2,528 | \$ 2,925 | \$ 3,071 | \$ 2,656       |
|                                     | Number of retirees           | 10                                 | 345      | 304      | 197      | 244      | 457      | 718      | 2,275          |
| 2002                                | Average monthly benefit      | \$ 100                             | \$ 260   | \$ 422   | \$ 655   | \$ 1,007 | \$ 1,455 | \$ 1,896 | \$ 987         |
|                                     | Average final average salary | \$ 1,385                           | \$ 2,250 | \$ 2,159 | \$ 2,442 | \$ 2,629 | \$ 3,065 | \$ 3,345 | \$ 2,675       |
|                                     | Number of retirees           | 5                                  | 230      | 265      | 229      | 248      | 357      | 248      | 1,582          |
| 2003                                | Average monthly benefit      | \$ 111                             | \$ 283   | \$ 509   | \$ 772   | \$ 1,061 | \$ 1,457 | \$ 1,811 | \$ 1,061       |
|                                     | Average final average salary | \$ 1,533                           | \$ 2,208 | \$ 2,439 | \$ 2,641 | \$ 2,732 | \$ 3,067 | \$ 3,269 | \$ 2,779       |
|                                     | Number of retirees           | 5                                  | 205      | 247      | 231      | 282      | 441      | 256      | 1,667          |
| 2004                                | Average monthly benefit      | \$ 125                             | \$ 283   | \$ 420   | \$ 688   | \$ 1,036 | \$ 1,447 | \$ 1,650 | \$ 1,008       |
|                                     | Average final average salary | \$ 1,837                           | \$ 2,398 | \$ 2,253 | \$ 2,559 | \$ 2,700 | \$ 3,045 | \$ 3,033 | \$ 2,722       |
|                                     | Number of retirees           | 6                                  | 299      | 292      | 318      | 386      | 593      | 350      | 2,244          |
| 2005                                | Average monthly benefit      | \$ 281                             | \$ 287   | \$ 468   | \$ 685   | \$ 1,185 | \$ 1,564 | \$ 1,942 | \$ 941         |
|                                     | Average final average salary | \$ 4,085                           | \$ 2,388 | \$ 2,278 | \$ 2,579 | \$ 3,074 | \$ 3,342 | \$ 3,470 | \$ 2,811       |
|                                     | Number of retirees           | 4                                  | 310      | 265      | 278      | 265      | 334      | 129      | 1,585          |
| 2006                                | Average monthly benefit      | \$ 426                             | \$ 282   | \$ 439   | \$ 703   | \$ 1,038 | \$ 1,570 | \$ 1,856 | \$ 914         |
|                                     | Average final average salary | \$ 3,520                           | \$ 2,433 | \$ 2,331 | \$ 2,709 | \$ 2,751 | \$ 3,325 | \$ 3,443 | \$ 2,792       |
|                                     | Number of retirees           | 3                                  | 342      | 298      | 283      | 290      | 354      | 160      | 1,730          |
| 2007                                | Average monthly benefit      | \$ 150                             | \$ 275   | \$ 481   | \$ 686   | \$ 1,119 | \$ 1,562 | \$ 1,844 | \$ 945         |
|                                     | Average final average salary | \$ 2,613                           | \$ 2,339 | \$ 2,500 | \$ 2,628 | \$ 2,954 | \$ 3,313 | \$ 3,385 | \$ 2,825       |
|                                     | Number of retirees           | 1                                  | 425      | 318      | 332      | 344      | 441      | 208      | 2,069          |
| 2008                                | Average monthly benefit      | \$ 0                               | \$ 263   | \$ 462   | \$ 720   | \$ 1,096 | \$ 1,584 | \$ 2,030 | \$ 926         |
|                                     | Average final average salary | \$ 0                               | \$ 2,342 | \$ 2,425 | \$ 2,765 | \$ 2,918 | \$ 3,359 | \$ 3,668 | \$ 2,835       |
|                                     | Number of retirees           | 0                                  | 408      | 396      | 330      | 358      | 376      | 193      | 2,061          |
| 2009                                | Average monthly benefit      | \$ 111                             | \$ 290   | \$ 489   | \$ 747   | \$ 1,227 | \$ 1,633 | \$ 2,177 | \$ 973         |
|                                     | Average final average salary | \$ 1,596                           | \$ 2,422 | \$ 2,463 | \$ 2,851 | \$ 3,217 | \$ 3,453 | \$ 3,966 | \$ 2,960       |
|                                     | Number of retirees           | 1                                  | 458      | 387      | 316      | 412      | 385      | 177      | 2,136          |
| 2010                                | Average monthly benefit      | \$ 442                             | \$ 287   | \$ 488   | \$ 777   | \$ 1,186 | \$ 1,606 | \$ 2,138 | \$ 940         |
|                                     | Average final average salary | \$ 6,215                           | \$ 2,523 | \$ 2,535 | \$ 2,890 | \$ 3,167 | \$ 3,455 | \$ 3,845 | \$ 2,968       |
|                                     | Number of retirees           | 2                                  | 500      | 449      | 351      | 394      | 338      | 222      | 2,256          |
| Ten Years Ended June 30, 2010       |                              |                                    |          |          |          |          |          |          |                |
|                                     | Average monthly benefit      | \$ 214                             | \$ 277   | \$ 463   | \$ 714   | \$ 1,102 | \$ 1,519 | \$ 1,861 | \$ 980         |
|                                     | Average final average salary | \$ 2,565                           | \$ 2,358 | \$ 2,368 | \$ 2,671 | \$ 2,894 | \$ 3,215 | \$ 3,344 | \$ 2,806       |
|                                     | Number of retirees           | 37                                 | 3,522    | 3,221    | 2,865    | 3,223    | 4,076    | 2,661    | 19,605         |

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

## AVERAGE MONTHLY BENEFIT AMOUNTS

TEN YEARS ENDED JUNE 30, 2010

| General Employees in the MSEP       |                              | Years Credited Service by Category |          |          |          |          |          |          | All Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|----------|----------|----------|----------|-------------|
| Members Retiring During Fiscal Year |                              | <5                                 | 5-10     | 10-15    | 15-20    | 20-25    | 25-30    | 30+      |             |
| 2001                                | Average monthly benefit      | \$ 98                              | \$ 241   | \$ 394   | \$ 640   | \$ 965   | \$ 1,390 | \$ 1,749 | \$ 1,084    |
|                                     | Average final average salary | \$ 1,624                           | \$ 2,069 | \$ 2,056 | \$ 2,407 | \$ 2,514 | \$ 2,925 | \$ 3,069 | \$ 2,633    |
|                                     | Number of retirees           | 9                                  | 340      | 299      | 192      | 243      | 454      | 717      | 2,254       |
| 2002                                | Average monthly benefit      | \$ 100                             | \$ 257   | \$ 410   | \$ 643   | \$ 996   | \$ 1,451 | \$ 1,890 | \$ 980      |
|                                     | Average final average salary | \$ 1,385                           | \$ 2,247 | \$ 2,149 | \$ 2,437 | \$ 2,609 | \$ 3,065 | \$ 3,346 | \$ 2,669    |
|                                     | Number of retirees           | 5                                  | 229      | 262      | 227      | 247      | 356      | 246      | 1,572       |
| 2003                                | Average monthly benefit      | \$ 111                             | \$ 246   | \$ 472   | \$ 675   | \$ 1,035 | \$ 1,453 | \$ 1,808 | \$ 1,042    |
|                                     | Average final average salary | \$ 1,533                           | \$ 2,168 | \$ 2,416 | \$ 2,561 | \$ 2,727 | \$ 3,067 | \$ 3,272 | \$ 2,766    |
|                                     | Number of retirees           | 5                                  | 195      | 237      | 216      | 277      | 440      | 255      | 1,625       |
| 2004                                | Average monthly benefit      | \$ 125                             | \$ 272   | \$ 420   | \$ 676   | \$ 1,036 | \$ 1,446 | \$ 1,650 | \$ 1,007    |
|                                     | Average final average salary | \$ 1,837                           | \$ 2,386 | \$ 2,253 | \$ 2,555 | \$ 2,700 | \$ 3,044 | \$ 3,033 | \$ 2,721    |
|                                     | Number of retirees           | 6                                  | 293      | 292      | 315      | 386      | 592      | 350      | 2,234       |
| 2005                                | Average monthly benefit      | \$ 229                             | \$ 263   | \$ 412   | \$ 675   | \$ 1,138 | \$ 1,564 | \$ 1,895 | \$ 918      |
|                                     | Average final average salary | \$ 4,449                           | \$ 2,364 | \$ 2,186 | \$ 2,574 | \$ 3,029 | \$ 3,342 | \$ 3,491 | \$ 2,788    |
|                                     | Number of retirees           | 3                                  | 298      | 258      | 275      | 258      | 334      | 125      | 1,551       |
| 2006                                | Average monthly benefit      | \$ 95                              | \$ 269   | \$ 428   | \$ 703   | \$ 1,038 | \$ 1,556 | \$ 1,848 | \$ 906      |
|                                     | Average final average salary | \$ 1,362                           | \$ 2,400 | \$ 2,324 | \$ 2,709 | \$ 2,751 | \$ 3,302 | \$ 3,435 | \$ 2,776    |
|                                     | Number of retirees           | 2                                  | 338      | 295      | 283      | 290      | 351      | 159      | 1,718       |
| 2007                                | Average monthly benefit      | \$ 0                               | \$ 258   | \$ 476   | \$ 679   | \$ 1,119 | \$ 1,562 | \$ 1,836 | \$ 943      |
|                                     | Average final average salary | \$ 0                               | \$ 2,320 | \$ 2,497 | \$ 2,626 | \$ 2,954 | \$ 3,313 | \$ 3,387 | \$ 2,824    |
|                                     | Number of retirees           | 0                                  | 413      | 316      | 330      | 344      | 441      | 207      | 2,051       |
| 2008                                | Average monthly benefit      | \$ 0                               | \$ 258   | \$ 449   | \$ 710   | \$ 1,096 | \$ 1,584 | \$ 2,030 | \$ 923      |
|                                     | Average final average salary | \$ 0                               | \$ 2,336 | \$ 2,413 | \$ 2,749 | \$ 2,918 | \$ 3,359 | \$ 3,668 | \$ 2,831    |
|                                     | Number of retirees           | 0                                  | 404      | 391      | 329      | 358      | 376      | 193      | 2,051       |
| 2009                                | Average monthly benefit      | \$ 111                             | \$ 265   | \$ 470   | \$ 739   | \$ 1,210 | \$ 1,631 | \$ 2,160 | \$ 962      |
|                                     | Average final average salary | \$ 1,596                           | \$ 2,391 | \$ 2,440 | \$ 2,850 | \$ 3,192 | \$ 3,451 | \$ 3,944 | \$ 2,945    |
|                                     | Number of retirees           | 1                                  | 444      | 383      | 314      | 409      | 384      | 176      | 2,111       |
| 2010                                | Average monthly benefit      | \$ 60                              | \$ 281   | \$ 475   | \$ 773   | \$ 1,179 | \$ 1,601 | \$ 2,113 | \$ 932      |
|                                     | Average final average salary | \$ 4,258                           | \$ 2,519 | \$ 2,519 | \$ 2,890 | \$ 3,154 | \$ 3,456 | \$ 3,815 | \$ 2,957    |
|                                     | Number of retirees           | 1                                  | 496      | 446      | 350      | 393      | 337      | 220      | 2,243       |
| Ten Years Ended June 30, 2010       |                              |                                    |          |          |          |          |          |          |             |
|                                     | Average monthly benefit      | \$ 117                             | \$ 262   | \$ 444   | \$ 697   | \$ 1,091 | \$ 1,516 | \$ 1,852 | \$ 971      |
|                                     | Average final average salary | \$ 1,942                           | \$ 2,339 | \$ 2,343 | \$ 2,658 | \$ 2,882 | \$ 3,213 | \$ 3,340 | \$ 2,795    |
|                                     | Number of retirees           | 32                                 | 3,450    | 3,179    | 2,831    | 3,205    | 4,065    | 2,648    | 19,410      |

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

## AVERAGE MONTHLY BENEFIT AMOUNTS

TEN YEARS ENDED JUNE 30, 2010

## Uniformed Members of the Water Patrol in the MSEP

| Members Retiring During Fiscal Year |                              | Years Credited Service by Category |      |          |          |       |          |          | All Members |
|-------------------------------------|------------------------------|------------------------------------|------|----------|----------|-------|----------|----------|-------------|
|                                     |                              | <5                                 | 5-10 | 10-15    | 15-20    | 20-25 | 25-30    | 30+      |             |
| 2001                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 1,664 | \$ 0     | \$ 0  | \$ 1,923 | \$ 3,236 | \$ 2,274    |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 5,833 | \$ 0     | \$ 0  | \$ 3,172 | \$ 4,274 | \$ 4,426    |
|                                     | Number of retirees           | 0                                  | 0    | 1        | 0        | 0     | 1        | 1        | 3           |
| 2002                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 0     | \$ 1,843 | \$ 1,843    |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 0     | \$ 3,432 | \$ 3,432    |
|                                     | Number of retirees           | 0                                  | 0    | 0        | 0        | 0     | 0        | 1        | 1           |
| 2003                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 0     | \$ 0     | \$ 0        |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 0     | \$ 0     | \$ 0        |
|                                     | Number of retirees           | 0                                  | 0    | 0        | 0        | 0     | 0        | 0        | 0           |
| 2004                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 1,743 | \$ 0     | \$ 1,743    |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 3,628 | \$ 0     | \$ 3,628    |
|                                     | Number of retirees           | 0                                  | 0    | 0        | 0        | 0     | 1        | 0        | 1           |
| 2005                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 0     | \$ 1,267 | \$ 0  | \$ 0     | \$ 0     | \$ 1,267    |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 0     | \$ 3,254 | \$ 0  | \$ 0     | \$ 0     | \$ 3,254    |
|                                     | Number of retirees           | 0                                  | 0    | 0        | 1        | 0     | 0        | 0        | 1           |
| 2006                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 2,848 | \$ 3,090 | \$ 2,969    |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 4,657 | \$ 4,710 | \$ 4,684    |
|                                     | Number of retirees           | 0                                  | 0    | 0        | 0        | 0     | 1        | 1        | 2           |
| 2007                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 0     | \$ 0     | \$ 0        |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 0     | \$ 0     | \$ 0        |
|                                     | Number of retirees           | 0                                  | 0    | 0        | 0        | 0     | 0        | 0        | 0           |
| 2008                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 750   | \$ 0     | \$ 0  | \$ 0     | \$ 0     | \$ 750      |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 2,541 | \$ 0     | \$ 0  | \$ 0     | \$ 0     | \$ 2,541    |
|                                     | Number of retirees           | 0                                  | 0    | 1        | 0        | 0     | 0        | 0        | 1           |
| 2009                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 2,351 | \$ 5,113 | \$ 3,732    |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 4,173 | \$ 7,902 | \$ 6,037    |
|                                     | Number of retirees           | 0                                  | 0    | 0        | 0        | 0     | 1        | 1        | 2           |
| 2010                                | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 0     | \$ 4,886 | \$ 4,886    |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 0     | \$ 0     | \$ 0  | \$ 0     | \$ 7,184 | \$ 7,184    |
|                                     | Number of retirees           | 0                                  | 0    | 0        | 0        | 0     | 0        | 2        | 2           |
| Ten Years Ended June 30, 2010       |                              |                                    |      |          |          |       |          |          |             |
|                                     | Average monthly benefit      | \$ 0                               | \$ 0 | \$ 1,207 | \$ 1,267 | \$ 0  | \$ 2,216 | \$ 3,842 | \$ 2,738    |
|                                     | Average final average salary | \$ 0                               | \$ 0 | \$ 4,187 | \$ 3,254 | \$ 0  | \$ 3,907 | \$ 5,781 | \$ 4,765    |
|                                     | Number of retirees           | 0                                  | 0    | 2        | 1        | 0     | 4        | 6        | 13          |

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.

## AVERAGE MONTHLY BENEFIT AMOUNTS

TEN YEARS ENDED JUNE 30, 2010

## Legislators in the MSEP

| Members Retiring During Fiscal Year |                              | Years Credited Service by Category |          |          |          |          |          |          | All Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|----------|----------|----------|----------|-------------|
|                                     |                              | <5                                 | 5-10     | 10-15    | 15-20    | 20-25    | 25-30    | 30+      |             |
| 2001                                | Average monthly benefit      | \$ 0                               | \$ 925   | \$ 1,302 | \$ 1,750 | \$ 0     | \$ 2,649 | \$ 0     | \$ 1,550    |
|                                     | Average final average salary | \$ 0                               | \$ 2,993 | \$ 2,993 | \$ 2,893 | \$ 0     | \$ 2,794 | \$ 0     | \$ 2,927    |
|                                     | Number of retirees           | 0                                  | 4        | 2        | 4        | 0        | 2        | 0        | 12          |
| 2002                                | Average monthly benefit      | \$ 0                               | \$ 871   | \$ 1,451 | \$ 2,068 | \$ 0     | \$ 2,830 | \$ 3,365 | \$ 1,944    |
|                                     | Average final average salary | \$ 0                               | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0     | \$ 2,993 | \$ 2,993 | \$ 2,993    |
|                                     | Number of retirees           | 0                                  | 1        | 3        | 2        | 0        | 1        | 1        | 8           |
| 2003                                | Average monthly benefit      | \$ 0                               | \$ 1,002 | \$ 1,393 | \$ 1,816 | \$ 2,482 | \$ 3,048 | \$ 2,700 | \$ 1,638    |
|                                     | Average final average salary | \$ 0                               | \$ 2,993 | \$ 2,993 | \$ 2,930 | \$ 2,993 | \$ 2,993 | \$ 2,613 | \$ 2,964    |
|                                     | Number of retirees           | 0                                  | 10       | 10       | 12       | 5        | 1        | 1        | 39          |
| 2004                                | Average monthly benefit      | \$ 0                               | \$ 797   | \$ 0     | \$ 1,959 | \$ 0     | \$ 0     | \$ 0     | \$ 1,184    |
|                                     | Average final average salary | \$ 0                               | \$ 2,993 | \$ 0     | \$ 2,993 | \$ 0     | \$ 0     | \$ 0     | \$ 2,993    |
|                                     | Number of retirees           | 0                                  | 6        | 0        | 3        | 0        | 0        | 0        | 9           |
| 2005                                | Average monthly benefit      | \$ 435                             | \$ 889   | \$ 1,361 | \$ 1,742 | \$ 2,409 | \$ 0     | \$ 3,411 | \$ 1,604    |
|                                     | Average final average salary | \$ 2,993                           | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,898 | \$ 0     | \$ 2,803 | \$ 2,951    |
|                                     | Number of retirees           | 1                                  | 12       | 4        | 2        | 4        | 0        | 4        | 27          |
| 2006                                | Average monthly benefit      | \$ 0                               | \$ 871   | \$ 1,524 | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 1,263    |
|                                     | Average final average salary | \$ 0                               | \$ 2,993 | \$ 2,993 | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 2,993    |
|                                     | Number of retirees           | 0                                  | 2        | 3        | 0        | 0        | 0        | 0        | 5           |
| 2007                                | Average monthly benefit      | \$ 150                             | \$ 852   | \$ 1,306 | \$ 1,855 | \$ 0     | \$ 0     | \$ 3,484 | \$ 1,121    |
|                                     | Average final average salary | \$ 2,613                           | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0     | \$ 0     | \$ 2,993 | \$ 2,972    |
|                                     | Number of retirees           | 1                                  | 12       | 2        | 2        | 0        | 0        | 1        | 18          |
| 2008                                | Average monthly benefit      | \$ 0                               | \$ 816   | \$ 1,306 | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 980      |
|                                     | Average final average salary | \$ 0                               | \$ 2,993 | \$ 2,993 | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 2,993    |
|                                     | Number of retirees           | 0                                  | 4        | 2        | 0        | 0        | 0        | 0        | 6           |
| 2009                                | Average monthly benefit      | \$ 0                               | \$ 910   | \$ 1,496 | \$ 2,057 | \$ 2,395 | \$ 0     | \$ 0     | \$ 1,202    |
|                                     | Average final average salary | \$ 0                               | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0     | \$ 0     | \$ 2,993    |
|                                     | Number of retirees           | 0                                  | 13       | 3        | 2        | 1        | 0        | 0        | 19          |
| 2010                                | Average monthly benefit      | \$ 0                               | \$ 982   | \$ 1,496 | \$ 2,245 | \$ 0     | \$ 3,242 | \$ 0     | \$ 1,559    |
|                                     | Average final average salary | \$ 0                               | \$ 2,993 | \$ 2,993 | \$ 2,993 | \$ 0     | \$ 2,993 | \$ 0     | \$ 2,993    |
|                                     | Number of retirees           | 0                                  | 4        | 1        | 1        | 0        | 1        | 0        | 7           |
| Ten Years Ended June 30, 2010       |                              |                                    |          |          |          |          |          |          |             |
|                                     | Average monthly benefit      | \$ 293                             | \$ 897   | \$ 1,404 | \$ 1,870 | \$ 2,444 | \$ 2,884 | \$ 3,313 | \$ 1,454    |
|                                     | Average final average salary | \$ 2,803                           | \$ 2,993 | \$ 2,993 | \$ 2,952 | \$ 2,955 | \$ 2,913 | \$ 2,830 | \$ 2,970    |
|                                     | Number of retirees           | 2                                  | 68       | 30       | 28       | 10       | 5        | 7        | 150         |

Note: COLA increases and temporary benefits payable under MSEP 2000 until age 62 are excluded from the above for comparison purposes.



## AVERAGE MONTHLY BENEFIT AMOUNTS

TEN YEARS ENDED JUNE 30, 2010

## Elected Officials in the MSEP

| Members Retiring During Fiscal Year |                              | Years Credited Service by Category |          |           |           |       |       |      | All Members |  |
|-------------------------------------|------------------------------|------------------------------------|----------|-----------|-----------|-------|-------|------|-------------|--|
|                                     |                              | <5                                 | 5-10     | 10-15     | 15-20     | 20-25 | 25-30 | 30+  |             |  |
| 2001                                | Average monthly benefit      | \$ 1,668                           | \$ 3,154 | \$ 4,789  | \$ 5,004  | \$ 0  | \$ 0  | \$ 0 | \$ 3,881    |  |
|                                     | Average final average salary | \$ 11,152                          | \$ 8,979 | \$ 11,152 | \$ 11,152 | \$ 0  | \$ 0  | \$ 0 | \$ 10,717   |  |
|                                     | Number of retirees           | 1                                  | 1        | 2         | 1         | 0     | 0     | 0    | 5           |  |
| 2002                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Number of retirees           | 0                                  | 0        | 0         | 0         | 0     | 0     | 0    | 0           |  |
| 2003                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Number of retirees           | 0                                  | 0        | 0         | 0         | 0     | 0     | 0    | 0           |  |
| 2004                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Number of retirees           | 0                                  | 0        | 0         | 0         | 0     | 0     | 0    | 0           |  |
| 2005                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 4,218  | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 4,218    |  |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 10,065 | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 10,065   |  |
|                                     | Number of retirees           | 0                                  | 0        | 2         | 0         | 0     | 0     | 0    | 2           |  |
| 2006                                | Average monthly benefit      | \$ 0                               | \$ 2,009 | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 2,009    |  |
|                                     | Average final average salary | \$ 0                               | \$ 8,979 | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 8,979    |  |
|                                     | Number of retirees           | 0                                  | 1        | 0         | 0         | 0     | 0     | 0    | 1           |  |
| 2007                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Number of retirees           | 0                                  | 0        | 0         | 0         | 0     | 0     | 0    | 0           |  |
| 2008                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Number of retirees           | 0                                  | 0        | 0         | 0         | 0     | 0     | 0    | 0           |  |
| 2009                                | Average monthly benefit      | \$ 0                               | \$ 3,336 | \$ 4,852  | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 4,094    |  |
|                                     | Average final average salary | \$ 0                               | \$ 8,979 | \$ 9,703  | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 9,341    |  |
|                                     | Number of retirees           | 0                                  | 1        | 1         | 0         | 0     | 0     | 0    | 2           |  |
| 2010                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0      | \$ 0      | \$ 0  | \$ 0  | \$ 0 | \$ 0        |  |
|                                     | Number of retirees           | 0                                  | 0        | 0         | 0         | 0     | 0     | 0    | 0           |  |
| Ten Years Ended June 30, 2010       |                              |                                    |          |           |           |       |       |      |             |  |
| Average monthly benefit             |                              | \$ 1,668                           | \$ 2,833 | \$ 4,573  | \$ 5,004  | \$ 0  | \$ 0  | \$ 0 | \$ 3,804    |  |
| Average final average salary        |                              | \$ 11,152                          | \$ 8,979 | \$ 10,427 | \$ 11,152 | \$ 0  | \$ 0  | \$ 0 | \$ 10,138   |  |
| Number of retirees                  |                              | 1                                  | 3        | 5         | 1         | 0     | 0     | 0    | 10          |  |

Note: COLA increases are excluded from the above for comparison purposes.

## AVERAGE MONTHLY BENEFIT AMOUNTS

TEN YEARS ENDED JUNE 30, 2010

## Administrative Law Judges and Legal Advisors in the MSEP

| Members Retiring During Fiscal Year |                              | Years Credited Service by Category |          |          |          |          |          |      | All Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|----------|----------|----------|------|-------------|
|                                     |                              | <5                                 | 5-10     | 10-15    | 15-20    | 20-25    | 25-30    | 30+  |             |
| 2001                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 2,982 | \$ 0     | \$ 0 | \$ 2,982    |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 5,965 | \$ 0     | \$ 0 | \$ 5,965    |
|                                     | Number of retirees           | 0                                  | 0        | 0        | 0        | 1        | 0        | 0    | 1           |
| 2002                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 3,739 | \$ 0     | \$ 0 | \$ 3,739    |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 7,478 | \$ 0     | \$ 0 | \$ 7,478    |
|                                     | Number of retirees           | 0                                  | 0        | 0        | 0        | 1        | 0        | 0    | 1           |
| 2003                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0     | \$ 3,615 | \$ 0     | \$ 0     | \$ 0 | \$ 3,615    |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0     | \$ 7,231 | \$ 0     | \$ 0     | \$ 0 | \$ 7,231    |
|                                     | Number of retirees           | 0                                  | 0        | 0        | 3        | 0        | 0        | 0    | 3           |
| 2004                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0 | \$ 0        |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0 | \$ 0        |
|                                     | Number of retirees           | 0                                  | 0        | 0        | 0        | 0        | 0        | 0    | 0           |
| 2005                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 3,750 | \$ 0     | \$ 3,584 | \$ 0     | \$ 0 | \$ 3,626    |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 7,500 | \$ 0     | \$ 7,169 | \$ 0     | \$ 0 | \$ 7,251    |
|                                     | Number of retirees           | 0                                  | 0        | 1        | 0        | 3        | 0        | 0    | 4           |
| 2006                                | Average monthly benefit      | \$ 1,088                           | \$ 1,669 | \$ 0     | \$ 0     | \$ 0     | \$ 3,333 | \$ 0 | \$ 2,356    |
|                                     | Average final average salary | \$ 7,836                           | \$ 5,933 | \$ 0     | \$ 0     | \$ 0     | \$ 6,667 | \$ 0 | \$ 6,776    |
|                                     | Number of retirees           | 1                                  | 1        | 0        | 0        | 0        | 2        | 0    | 4           |
| 2007                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0 | \$ 0        |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0     | \$ 0 | \$ 0        |
|                                     | Number of retirees           | 0                                  | 0        | 0        | 0        | 0        | 0        | 0    | 0           |
| 2008                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 2,040 | \$ 3,968 | \$ 0     | \$ 0     | \$ 0 | \$ 2,683    |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 4,081 | \$ 7,936 | \$ 0     | \$ 0     | \$ 0 | \$ 5,366    |
|                                     | Number of retirees           | 0                                  | 0        | 2        | 1        | 0        | 0        | 0    | 3           |
| 2009                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 4,200 | \$ 0     | \$ 0 | \$ 4,200    |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 0     | \$ 0     | \$ 8,400 | \$ 0     | \$ 0 | \$ 8,400    |
|                                     | Number of retirees           | 0                                  | 0        | 0        | 0        | 2        | 0        | 0    | 2           |
| 2010                                | Average monthly benefit      | \$ 823                             | \$ 0     | \$ 2,827 | \$ 0     | \$ 4,101 | \$ 0     | \$ 0 | \$ 2,645    |
|                                     | Average final average salary | \$ 8,172                           | \$ 0     | \$ 5,851 | \$ 0     | \$ 8,202 | \$ 0     | \$ 0 | \$ 7,019    |
|                                     | Number of retirees           | 1                                  | 0        | 2        | 0        | 1        | 0        | 0    | 4           |
| Ten Years Ended June 30, 2010       |                              |                                    |          |          |          |          |          |      |             |
|                                     | Average monthly benefit      | \$ 956                             | \$ 1,669 | \$ 2,697 | \$ 3,703 | \$ 3,747 | \$ 3,333 | \$ 0 | \$ 3,115    |
|                                     | Average final average salary | \$ 8,004                           | \$ 5,933 | \$ 5,473 | \$ 7,407 | \$ 7,494 | \$ 6,667 | \$ 0 | \$ 6,919    |
|                                     | Number of retirees           | 2                                  | 1        | 5        | 4        | 8        | 2        | 0    | 22          |

Note: COLA increases are excluded from the above for comparison purposes.

## AVERAGE MONTHLY BENEFIT AMOUNTS

TEN YEARS ENDED JUNE 30, 2010

| Judicial Plan                       |                              | Years Credited Service by Category |          |          |          |           |           |           | All Members |
|-------------------------------------|------------------------------|------------------------------------|----------|----------|----------|-----------|-----------|-----------|-------------|
| Members Retiring During Fiscal Year |                              | <5                                 | 5-10     | 10-15    | 15-20    | 20-25     | 25-30     | 30+       |             |
| 2001                                | Average monthly benefit      | \$ 0                               | \$ 2,378 | \$ 4,026 | \$ 3,849 | \$ 4,500  | \$ 4,573  | \$ 4,250  | \$ 4,200    |
|                                     | Average final average salary | \$ 0                               | \$ 8,000 | \$ 8,199 | \$ 7,698 | \$ 9,000  | \$ 9,146  | \$ 8,500  | \$ 8,593    |
|                                     | Number of retirees           | 0                                  | 1        | 3        | 3        | 6         | 4         | 2         | 19          |
| 2002                                | Average monthly benefit      | \$ 0                               | \$ 1,337 | \$ 3,606 | \$ 4,093 | \$ 4,000  | \$ 4,576  | \$ 0      | \$ 3,877    |
|                                     | Average final average salary | \$ 0                               | \$ 6,095 | \$ 7,405 | \$ 8,186 | \$ 8,000  | \$ 9,153  | \$ 0      | \$ 8,101    |
|                                     | Number of retirees           | 0                                  | 1        | 2        | 4        | 1         | 3         | 0         | 11          |
| 2003                                | Average monthly benefit      | \$ 756                             | \$ 1,946 | \$ 4,042 | \$ 3,849 | \$ 4,000  | \$ 4,500  | \$ 4,250  | \$ 3,379    |
|                                     | Average final average salary | \$ 8,000                           | \$ 6,317 | \$ 8,333 | \$ 7,697 | \$ 8,000  | \$ 9,000  | \$ 8,500  | \$ 7,807    |
|                                     | Number of retirees           | 2                                  | 3        | 3        | 6        | 3         | 1         | 2         | 20          |
| 2004                                | Average monthly benefit      | \$ 855                             | \$ 3,028 | \$ 4,500 | \$ 4,061 | \$ 4,597  | \$ 0      | \$ 4,500  | \$ 3,952    |
|                                     | Average final average salary | \$ 5,129                           | \$ 8,000 | \$ 9,000 | \$ 8,121 | \$ 9,194  | \$ 0      | \$ 9,000  | \$ 8,350    |
|                                     | Number of retirees           | 1                                  | 1        | 2        | 4        | 3         | 0         | 1         | 12          |
| 2005                                | Average monthly benefit      | \$ 0                               | \$ 0     | \$ 3,935 | \$ 4,500 | \$ 4,142  | \$ 4,300  | \$ 4,396  | \$ 4,216    |
|                                     | Average final average salary | \$ 0                               | \$ 0     | \$ 8,423 | \$ 9,000 | \$ 8,284  | \$ 8,600  | \$ 8,792  | \$ 8,550    |
|                                     | Number of retirees           | 0                                  | 0        | 3        | 1        | 3         | 5         | 2         | 14          |
| 2006                                | Average monthly benefit      | \$ 592                             | \$ 1,946 | \$ 4,500 | \$ 4,000 | \$ 0      | \$ 4,396  | \$ 0      | \$ 2,930    |
|                                     | Average final average salary | \$ 5,875                           | \$ 6,564 | \$ 9,000 | \$ 8,000 | \$ 0      | \$ 8,792  | \$ 0      | \$ 7,496    |
|                                     | Number of retirees           | 2                                  | 2        | 1        | 2        | 0         | 2         | 0         | 9           |
| 2007                                | Average monthly benefit      | \$ 207                             | \$ 2,121 | \$ 3,995 | \$ 4,260 | \$ 4,357  | \$ 4,071  | \$ 4,250  | \$ 3,798    |
|                                     | Average final average salary | \$ 5,875                           | \$ 7,889 | \$ 7,990 | \$ 8,521 | \$ 8,714  | \$ 8,143  | \$ 8,500  | \$ 8,244    |
|                                     | Number of retirees           | 2                                  | 5        | 5        | 15       | 7         | 7         | 4         | 45          |
| 2008                                | Average monthly benefit      | \$ 592                             | \$ 2,045 | \$ 4,120 | \$ 4,828 | \$ 5,132  | \$ 4,593  | \$ 5,186  | \$ 3,908    |
|                                     | Average final average salary | \$ 5,821                           | \$ 6,203 | \$ 8,276 | \$ 9,656 | \$ 10,264 | \$ 9,186  | \$ 10,373 | \$ 8,537    |
|                                     | Number of retirees           | 2                                  | 2        | 6        | 3        | 3         | 2         | 1         | 19          |
| 2009                                | Average monthly benefit      | \$ 524                             | \$ 1,786 | \$ 3,663 | \$ 4,616 | \$ 5,286  | \$ 5,127  | \$ 5,020  | \$ 3,440    |
|                                     | Average final average salary | \$ 6,103                           | \$ 7,469 | \$ 7,811 | \$ 9,181 | \$ 10,572 | \$ 10,255 | \$ 10,040 | \$ 8,351    |
|                                     | Number of retirees           | 6                                  | 2        | 7        | 6        | 3         | 3         | 1         | 28          |
| 2010                                | Average monthly benefit      | \$ 458                             | \$ 1,333 | \$ 4,507 | \$ 3,802 | \$ 0      | \$ 5,181  | \$ 4,973  | \$ 3,972    |
|                                     | Average final average salary | \$ 6,597                           | \$ 8,000 | \$ 9,577 | \$ 7,604 | \$ 0      | \$ 10,362 | \$ 9,946  | \$ 9,047    |
|                                     | Number of retirees           | 1                                  | 1        | 2        | 2        | 0         | 2         | 3         | 11          |
| Ten Years Ended June 30, 2010       |                              |                                    |          |          |          |           |           |           |             |
| Average monthly benefit             |                              | \$ 547                             | \$ 2,004 | \$ 4,002 | \$ 4,205 | \$ 4,516  | \$ 4,491  | \$ 4,526  | \$ 3,766    |
| Average final average salary        |                              | \$ 6,218                           | \$ 7,165 | \$ 8,239 | \$ 8,404 | \$ 9,032  | \$ 8,982  | \$ 9,052  | \$ 8,311    |
| Number of retirees                  |                              | 16                                 | 18       | 34       | 46       | 29        | 29        | 16        | 188         |

Note: COLA increases are excluded from the above for comparison purposes.

# RETIREES AND BENEFICIARIES

TABULATED BY FISCAL YEAR OF RETIREMENT

## MSEP

| Fiscal Year<br>of Retirement | Number        | Annual<br>Annual Benefit | Average<br>Monthly Benefit |
|------------------------------|---------------|--------------------------|----------------------------|
| 1972 & prior                 | 5             | \$ 28,327                | \$ 472                     |
| 1973                         | 8             | 51,826                   | 540                        |
| 1974                         | 7             | 50,224                   | 598                        |
| 1975                         | 13            | 78,403                   | 503                        |
| 1976                         | 32            | 207,267                  | 540                        |
| 1977                         | 37            | 287,816                  | 648                        |
| 1978                         | 50            | 333,446                  | 556                        |
| 1979                         | 45            | 334,997                  | 620                        |
| 1980                         | 50            | 435,936                  | 727                        |
| 1981                         | 82            | 730,296                  | 742                        |
| 1982                         | 120           | 1,141,543                | 793                        |
| 1983                         | 142           | 1,504,080                | 883                        |
| 1984                         | 171           | 1,467,816                | 715                        |
| 1985                         | 181           | 1,938,589                | 893                        |
| 1986                         | 249           | 2,172,700                | 727                        |
| 1987                         | 287           | 2,985,337                | 867                        |
| 1988                         | 355           | 4,442,207                | 1,043                      |
| 1989                         | 407           | 5,549,099                | 1,136                      |
| 1990                         | 404           | 5,375,149                | 1,109                      |
| 1991                         | 545           | 8,461,782                | 1,294                      |
| 1992                         | 583           | 8,537,073                | 1,220                      |
| 1993                         | 680           | 9,766,726                | 1,197                      |
| 1994                         | 679           | 9,871,774                | 1,212                      |
| 1995                         | 887           | 13,647,388               | 1,282                      |
| 1996                         | 896           | 14,203,054               | 1,321                      |
| 1997                         | 909           | 14,705,999               | 1,348                      |
| 1998                         | 1,100         | 17,388,526               | 1,317                      |
| 1999                         | 1,186         | 19,082,477               | 1,341                      |
| 2000                         | 1,277         | 20,825,252               | 1,359                      |
| 2001                         | 2,477         | 41,315,011               | 1,390                      |
| 2002                         | 1,811         | 27,072,309               | 1,246                      |
| 2003                         | 1,883         | 30,196,611               | 1,336                      |
| 2004                         | 2,466         | 39,692,946               | 1,341                      |
| 2005                         | 1,829         | 26,172,754               | 1,192                      |
| 2006                         | 1,993         | 28,150,504               | 1,177                      |
| 2007                         | 2,354         | 34,055,343               | 1,206                      |
| 2008                         | 2,365         | 32,965,039               | 1,162                      |
| 2009                         | 2,476         | 35,375,292               | 1,191                      |
| 2010                         | 2,566         | 35,267,728               | 1,145                      |
|                              | <u>33,607</u> | <u>\$495,868,646</u>     | <u>1,230</u>               |

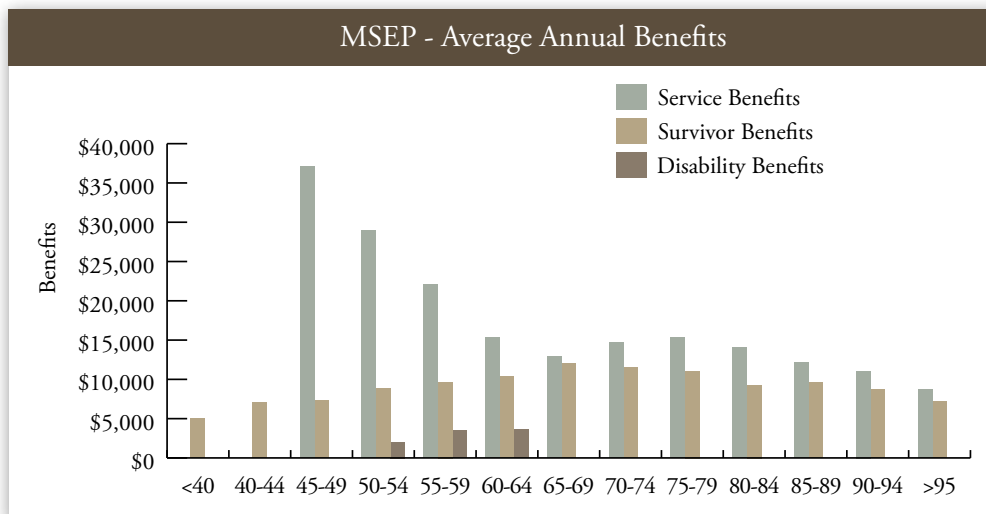
## Judicial Plan

| Fiscal Year<br>of Retirement | Number     | Annual<br>Annual Benefit | Average<br>Monthly Benefit |
|------------------------------|------------|--------------------------|----------------------------|
| 1976 & prior                 | 1          | \$ 10,260                | \$ 855                     |
| 1978                         | 1          | 14,721                   | 1,227                      |
| 1980                         | 1          | 20,074                   | 1,673                      |
| 1981                         | 2          | 121,477                  | 5,062                      |
| 1982                         | 1          | 11,598                   | 967                        |
| 1983                         | 1          | 19,717                   | 1,643                      |
| 1984                         | 1          | 20,957                   | 1,746                      |
| 1985                         | 3          | 151,780                  | 4,216                      |
| 1986                         | 5          | 185,238                  | 3,087                      |
| 1987                         | 16         | 765,175                  | 3,985                      |
| 1988                         | 7          | 334,323                  | 3,980                      |
| 1989                         | 9          | 491,508                  | 4,551                      |
| 1990                         | 6          | 312,755                  | 4,344                      |
| 1991                         | 18         | 952,015                  | 4,407                      |
| 1992                         | 7          | 356,231                  | 4,241                      |
| 1993                         | 8          | 350,812                  | 3,654                      |
| 1994                         | 8          | 336,402                  | 3,504                      |
| 1995                         | 20         | 1,283,406                | 5,348                      |
| 1996                         | 11         | 528,874                  | 4,007                      |
| 1997                         | 6          | 320,878                  | 4,457                      |
| 1998                         | 25         | 1,524,989                | 5,083                      |
| 1999                         | 23         | 1,282,794                | 4,648                      |
| 2000                         | 26         | 1,500,577                | 4,810                      |
| 2001                         | 20         | 1,532,987                | 6,387                      |
| 2002                         | 15         | 887,932                  | 4,933                      |
| 2003                         | 24         | 1,290,959                | 4,482                      |
| 2004                         | 18         | 1,043,269                | 4,830                      |
| 2005                         | 20         | 1,129,018                | 4,704                      |
| 2006                         | 17         | 647,421                  | 3,174                      |
| 2007                         | 61         | 3,028,291                | 4,137                      |
| 2008                         | 32         | 1,483,036                | 3,862                      |
| 2009                         | 39         | 1,745,493                | 3,730                      |
| 2010                         | 17         | 828,809                  | 4,063                      |
|                              | <u>469</u> | <u>\$24,513,776</u>      | <u>4,356</u>               |

## TOTAL BENEFITS PAYABLE

TABULATED BY ATTAINED AGES OF BENEFIT RECIPIENTS  
AS OF JUNE 30, 2010

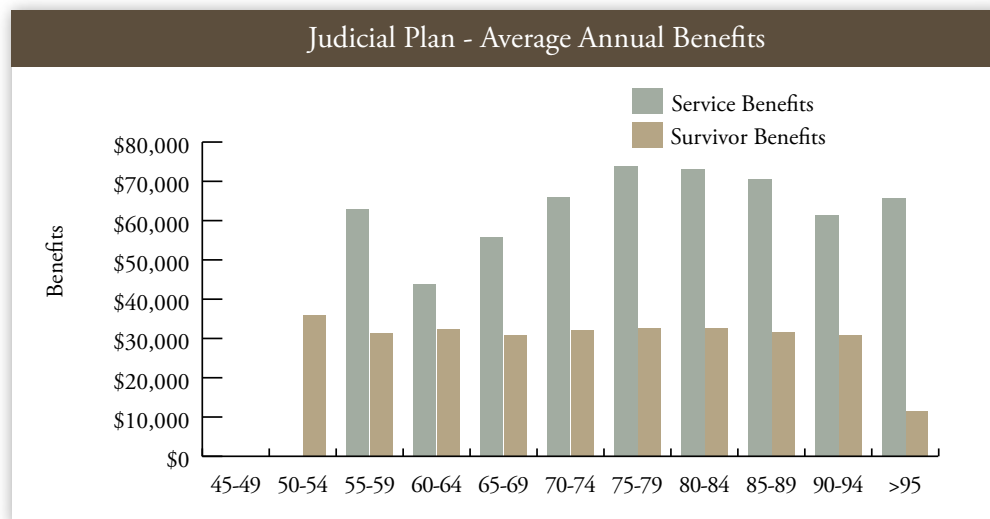
| MSEP                      |                       |                    |                          |                    |                                |                    |        |                    |
|---------------------------|-----------------------|--------------------|--------------------------|--------------------|--------------------------------|--------------------|--------|--------------------|
| Attained<br>Ages          | Service<br>Retirement |                    | Disability<br>Retirement |                    | Survivors and<br>Beneficiaries |                    | Totals |                    |
|                           | No.                   | Annual<br>Benefits | No.                      | Annual<br>Benefits | No.                            | Annual<br>Benefits | No.    | Annual<br>Benefits |
| Under 20                  |                       |                    |                          |                    | 69                             | \$ 282,372         | 69     | \$ 282,372         |
| 20-24                     |                       |                    |                          |                    | 24                             | 89,137             | 24     | 89,137             |
| 25-29                     |                       |                    |                          |                    | 8                              | 46,548             | 8      | 46,548             |
| 30-34                     |                       |                    |                          |                    | 25                             | 193,992            | 25     | 193,992            |
| 35-39                     |                       |                    |                          |                    | 37                             | 199,643            | 37     | 199,643            |
| 40-44                     |                       |                    |                          |                    | 71                             | 501,805            | 71     | 501,805            |
| 45-49                     | 5                     | \$ 185,484         |                          |                    | 110                            | 799,628            | 115    | 985,112            |
| 50-54                     | 596                   | 17,248,287         | 1                        | \$ 2,016           | 196                            | 1,736,156          | 793    | 18,986,459         |
| 55-59                     | 3,616                 | 79,801,352         | 4                        | 13,788             | 311                            | 3,002,352          | 3,931  | 82,817,492         |
| 60-64                     | 7,005                 | 107,396,834        | 5                        | 18,072             | 447                            | 4,644,835          | 7,457  | 112,059,741        |
| 65-69                     | 6,312                 | 81,375,201         |                          |                    | 454                            | 5,431,495          | 6,766  | 86,806,696         |
| 70-74                     | 4,555                 | 66,683,976         |                          |                    | 506                            | 5,838,391          | 5,061  | 72,522,367         |
| 75-79                     | 3,240                 | 49,687,956         |                          |                    | 610                            | 6,740,957          | 3,850  | 56,428,913         |
| 80-84                     | 2,241                 | 31,484,720         |                          |                    | 548                            | 5,085,553          | 2,789  | 36,570,273         |
| 85-89                     | 1,217                 | 14,778,430         |                          |                    | 317                            | 3,049,897          | 1,534  | 17,828,327         |
| 90-94                     | 471                   | 5,203,196          |                          |                    | 112                            | 970,903            | 583    | 6,174,099          |
| 95                        | 39                    | 342,305            |                          |                    | 13                             | 107,664            | 52     | 449,969            |
| 96                        | 30                    | 291,537            |                          |                    | 6                              | 21,672             | 36     | 313,209            |
| 97                        | 13                    | 121,935            |                          |                    | 3                              | 45,660             | 16     | 167,595            |
| 98                        | 15                    | 98,880             |                          |                    | 2                              | 5,587              | 17     | 104,467            |
| 99                        | 6                     | 47,237             |                          |                    |                                |                    | 6      | 47,237             |
| 100                       | 3                     | 32,892             |                          |                    | 1                              | 2,424              | 4      | 35,316             |
| 101                       | 5                     | 29,880             |                          |                    |                                |                    | 5      | 29,880             |
| 102                       |                       |                    |                          |                    | 1                              | 2,572              | 1      | 2,572              |
| 103                       | 1                     | 9,012              |                          |                    |                                |                    | 1      | 9,012              |
| Totals                    | 29,370                | \$ 454,819,114     | 10                       | \$ 33,876          | 3,871                          | \$ 38,799,243      | 33,251 | \$ 493,652,233     |
| Average age at retirement |                       | 60.2 years         |                          |                    |                                |                    |        |                    |
| Average age now           |                       | 69.2 years         |                          |                    |                                |                    |        |                    |



## TOTAL BENEFITS PAYABLE

TABULATED BY ATTAINED AGES OF BENEFIT RECIPIENTS  
AS OF JUNE 30, 2010

| Judicial Plan                        |                       |                    |                                |                    |        |                    |
|--------------------------------------|-----------------------|--------------------|--------------------------------|--------------------|--------|--------------------|
| Attained<br>Ages                     | Service<br>Retirement |                    | Survivors and<br>Beneficiaries |                    | Totals |                    |
|                                      | No.                   | Annual<br>Benefits | No.                            | Annual<br>Benefits | No.    | Annual<br>Benefits |
| 50-54                                |                       |                    | 3                              | \$ 107,808         | 3      | \$ 107,808         |
| 55-59                                | 11                    | \$ 692,484         | 5                              | 156,903            | 16     | 849,387            |
| 60-64                                | 58                    | 2,542,980          | 8                              | 259,221            | 66     | 2,802,201          |
| 65-69                                | 62                    | 3,464,283          | 16                             | 491,872            | 78     | 3,956,155          |
| 70-74                                | 63                    | 4,159,141          | 10                             | 321,282            | 73     | 4,480,423          |
| 75-79                                | 51                    | 3,770,364          | 18                             | 558,154            | 69     | 4,328,518          |
| 80-84                                | 38                    | 2,779,830          | 36                             | 1,176,660          | 74     | 3,956,490          |
| 85-89                                | 29                    | 2,041,915          | 25                             | 792,579            | 54     | 2,834,494          |
| 90-94                                | 5                     | 307,176            | 20                             | 618,340            | 25     | 925,516            |
| 95 and over                          | 4                     | 263,160            | 3                              | 34,752             | 7      | 297,912            |
| Totals                               | 321                   | \$ 20,021,333      | 144                            | \$ 4,547,571       | 465    | \$ 24,538,904      |
| Average age at retirement 65.3 years |                       |                    |                                |                    |        |                    |
| Average age now 75.2 years           |                       |                    |                                |                    |        |                    |





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